AMERICAN GAS ASSOCIATION MONTHLY

DECEMBER · 1938

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AMERICAN GAS ASSOCIATION MONTHLY

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On Christmas Eve, the Calumet Holder of The Peoples Gas Light and Coke Company, Chicago, will look like this. The photograph, taken by John Tweedie, was admitted in October to the London Salon of Photography, which is reputed to be one of the two outstanding salons in the world.

AMERICAN GAS
ASSOCIATION
MONTHLY

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James M. Beall, Editor

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Capitalizing on the Convention

SOME conventions have the habit of expiring immediately after someone seconds a motion for adjournment. But not so in the gas industry. For years it has been the practice of a number of forward-looking companies to carry back home to those unable to attend, a full and comprehensive report of the business sessions. In this way the vast amount of material disseminated during convention week is not allowed to lie dormant, as dead and useless as yesterday's newspaper. It is revitalized by those who were privileged to attend, for the benefit of those thousands who stayed at home.

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The program for these annual conventions, representing six months of intensive effort, is built to order for the individual gas man and his specific problems. Every paper, report and address deals with important problems, endeavoring to set forth practical solutions that are fundamentally sound and capable of being applied successfully on the job. But, unless the rank and file, the thousands who stay at home, receive first-hand reports from the men who are fresh from the convention, much of the value of these annual meetings is lost.

Here's how one company "covered" the convention. The company's delegation was selected to represent all of the company's main divisions. At a meeting held before the convention, by using an advance program, each delegate was assigned to cover the sectional meetings concerned with his line of work, with a view to making a complete report on these meetings on his return.

In addition, all delegates were instructed to attend all general sessions, and wherever possible a specific talk at one of the general sessions was assigned to the delegate who could best report on it.

Upon returning from the convention, arrangements were made to hold a dinner meeting of superintendents and department heads, numbering about two hundred, at which brief abstracts of the more important talks and committee reports were given. It was found the convention could be reported in this way at a three-hour meeting, with two hours devoted to reports.

In addition to this general meeting, a number of divisional meetings were held at which each delegate presented topics of especial interest to his division. Many of the printed convention addresses, papers and committee reports were made available at the same time.

This system of reporting has resulted in a double benefit: First, it has clarified in the minds of those attending the convention the subjects which they heard discussed there; secondly, it has given to the management group a condensed version of the convention, with the additional advantage of having the convention interpreted for them in terms of the company's specific problems.

An indirect benefit resulting from this plan has been the active interest on the part of superintendents and department heads throughout the company organization in getting and reading the copies of addresses, papers and committee reports which the company library keeps on file. Reporting on these, and summarizing the high points of the general sessions have aroused the interest of those present in learning more about the subjects presented.

Other companies have used meetings of employee organizations to accomplish the same purpose. Still others prefer to have written reports submitted by each delegate which not only summarize the papers presented at certain meetings but, by no means least important, present an analysis of prevailing sentiment as reflected by those in attendance.

One company went so far as to have a 37-page mimeographed report issued containing a digest of the highlights of the convention. This was distributed to department heads who were instructed to call it to the attention of their assistants and others.

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Another method of "bringing the convention back home," is by using the employee magazine or house organ. Many companies devote large portions of their November magazines to carefully prepared reviews of the convention. This phase of convention reporting can be made especially attractive and valuable, with photographs, written impressions by some of the delegates and other high spots of general interest.

All companies have an equal opportunity to capitalize on the convention. The small company, as well as the large, can "cash-in" on the full value of the meetings by using any one, or a combination, of the above methods. In this way, the tremendous amount of work which goes into the staging of a convention will live long after the convention itself passes into history.

Elements of a Sound Industrial Relations Program

By HAROLD F. BROWNE

Director, Management Research Division, National Industrial Conference Board, New York, N. Y.

FOR over a century we have been an industrial nation. First, a few individuals or groups, then more, and finally large numbers of individuals or groups became employers of labor. With all the experience that has been accumulated about the employment relationship, one might think that we would be further along today than to be considering fundamentals. And yet, we are not. In many ways we seem no further toward a final solution of this problem of employer-employee relationships than we were some generations ago.

The reason for this apparent lack of progress is, of course, that in employer-employee relations we are dealing with that most changeable and unpredictable factor that we call human nature—human nature with all its fine motives and its base motives, its idealism and its pure cussedness. Not only are we dealing with this difficult factor, but it is operating from two points of view, or on two fronts—that of the employer, or management, and that of the employee, or labor. And don't think for a moment that all the good motives are on one side and all the cussedness on the other. Observation has led me to believe more and more that they are rather evenly divided.

Open Mind Important

It might seem that our failure to make greater progress in this field is a cause for discouragement. We have successively thought we were on the right track and have gone ahead along certain lines only to find that there appeared to be a serious discrepancy in our reasoning, and so we have gone back to the beginning and started over again. But far from being a cause for discouragement this seems to me a reason for encouragement. So long as men are open-minded, are willing to analyze their policies objectively, recognize the good and the bad, and be willing to profit by such analysis, there is real hope for progress. And the fact that today we are still reverting to fundamentals is the best evidence that we are still seeking the truth.

Perhaps one of the most unfortunate mistakes that has been made in the past has been the search for a formula of industrial relations policy. There can, of course, be no such thing. Where you are dealing with known quantities, as in engineering or science, formulas can be devised and can greatly simplify the problem of dealing with these matters. But human nature cannot be reduced to a formula, and the sooner we realize that fact the sooner we will save ourselves many serious mistakes. True, certain principles can and have been evolved which experience has proved are dependable. But the application of these principles to individual cases will vary almost in proportion to the number of companies in which they are applied.

Chaos and Harmony

We have passed through several years of chaos in labor relations. We have witnessed many instances of bitter labor warfare. Some of the victims of this warfare have been companies that prided themselves on their advanced industrial relations policy. Some companies, apparently with no well-developed industrial relations policy, and with hell popping all around them, have gone quietly on about their business, seemingly immune to the disrupting influences about them. Did they have more intelligent employees? Usually not. Did they pay higher wages? Usually not. Were they spared the attention of those whose business it is to stir up dissatisfaction? They certainly were not. Did they possess some influence of some kind that procured them protection? They did not. But certainly they had something that made a difference, and whatever that something is it obviously is the basis of sound labor relations.

Before we can plan a sound industrial relations policy we must take into account factors in the situation with which we must deal. May I suggest some that seem to me to have great significance in the problem of today?

First, is the change in scale of operation today—the tendency for employing establishments to become large organizations. The effect of this development is to widen the gap between the executive responsible for labor policy and the rank and file employee. No longer, in most cases, can the employee deal directly with the man who decides questions of policy, and to establish contact which will make the employee feel that the big boss really understands his problem is a very

Mr. Browne

In 1922, after employment and production experience, Mr. Browne joined the staff of the National Industrial Conference Board to inaugurate a study of wages; and this work has been carried on consistently since that time. In addition to his work as director of the Management Research Division of the Conference Board, he has served in various public capacities, including the handling of comprehensive studies on the effect of legislation on New York State industries in 1926-27 for the New York Industrial Survey Commission. Mr. Browne also served on former President Hoover's Commission on Employment and Unemployment Statistics in 1930, and on the Committee on Industrial Decentralization and Housing in 1931.

Address before luncheon conference, Committee on Personnel Practices, Atlantic City, N. J., October 11, 1938.

difficult matter. Often with the best of intention and the sincerest purpose to establish such contact, the result has been a pitiful failure.

Second, is the tendency toward occupational specialization. Wage earners have more and more been satisfied to acquire a very limited skill, and management has been satisfied to permit this, with the result that we have thousands upon thousands of wage earners who can perform only one or a few operations, and who, if such employment is not available, are practically no better off than common labor. This was forcibly brought to our attention in 1936 and 1937 when, with manufacturing industries seeking high and low for thoroughly skilled men and not being able to find them, we were at the same time faced with the need of supporting millions of unemployed workers.

This lack of direct communication with the big boss, and this dependence of so many workers on a very limited skill and, consequently, a limited market for their services has unquestionably made large numbers of workers fearful of their future, and, consequently, receptive to the vain promises of various groups that are willing to promise them safety and security. We must take account of this in planning industrial relations policy.

Worker's Outlook Changes

Another very definite change has affected the outlook of the worker and his attitude toward industrial questions. Some years ago the typical worker spent very few years in school. When he went to work his educational and cultural status had been established, and in only few cases did he make any advance from this point. Today the educational background of the working population is steadily rising. For one thing, they are staying longer in school. Still more important, they are exposed to new influences in their daily life. Tabloid newspapers, motion picture news releases, and most important of all, the radio, have brought to them the appeals of all kinds of groups sponsoring various programs and proposals. The worker today is constantly bombarded with miscellaneeous information, but he has not reached the stage, in most cases, where he can appraise the reliability of this information. The result, however, is that his horizon is no longer restricted to his job or his home. He has a ringside seat where he can watch the conflict between theories of government, of economic organization, of labor organization, of human liberties. All of this necessarily stimulates in his mind questionings, doubts, and perplexities.

Spread of Alien Doctrines

As one phase of this development, and one that is assuming dangerous importance, is the increasing prevalence and spread in this country of alien doctrines. These doctrines agree on one point—the overthrow or virtual strangulation of free enterprise. They unite, therefore, in damning private enterprise, and they lay all the ills of the worker to this system and to the manner of its operation under existing private management. The theoretical advantages of various collectivist systems are vividly portrayed by proponents of these systems who remain discreetly silent about the actual status of labor under these systems, where they have actually been tried. The worker does not need to be converted to Communism or Fascism to be confused about what formerly he had taken for granted; and to a worker in this doubtful frame of mind the most ordinary and necessary actions of employers can easily be distorted into the appearance of exploitation and disregard for the worker's rights.

So if I may generalize and attempt to describe the composite wage earner of today, I would say that we have a worker detached from close contact with his employer by the growing scale of operation; a worker whose equipment of skill is narrow and limited, and whose chance for employment is controlled by the demand for his particular skill—who, therefore, is in constant dread of unemployment and is willing to espouse in deadly earnest a program that seems to promise greater security of income; a worker who is keener intellectually than his father or grandfather, who follows the news and is the particular target of a tremendous volume of propaganda; a worker dismayed by the apparent failure of the free enterprise system to function properly during rather extended periods, who is repeatedly told that this is all the employer's fault; a worker under constant pressure to follow new leaders, believe in new doctrines and in a class struggle, with labor aligned against management. This is the worker for whom industrial relations policy in the future must be fashioned. He is still sound at heart and open to conviction, but he is perplexed and afraid, and struggling with personal economic problems as difficult of solution as some of the broader economic problems with which his employer is confronted.

We have come to the close of one period of industrial relations and we are embarking on a new one. We necessarily are going through a period of readjustment and reorientation. Many employers find it hard really to grasp the fact that the status of employer and employee has definitely changed since a decade ago. They try stubbornly to recreate the conditions of ten years ago, but it can't be done.

New Status of Labor

Things may be made to appear the same on the surface for a time, but down underneath they have changed. Not that the fundamental basis of doing business has changed—management still manages the property and labor still takes orders from management—but a new relationship between the two has been established. As a result of legislation, court decisions, and the rulings of administrative boards, labor has achieved a new standing, of which it is definitely aware. If management hopes to progress toward a rational basis of dealings with employees it has got to be willing to recognize this new status, to discard outmoded preconceptions and prejudices, and face its problem realistically as of today, in the light of today's conditions, today's psychology, and today's public opinion.

This does not mean surrendering management's prerogative and duty to run the business. It does not mean wet-nursing employees. But it does mean meeting employees, whether or not organized in a union, frankly, freely, and open-mindedly. It means being sympathetic to employees' problems and willing to do what lies within management's power to help solve these problems, not because of fear of what labor may do, but be-

cause it is the natural, human and American way.

If these are our objectives it seems to me that any industrial relations policy worth the name has got to be based on one inescapable fundamental —mutual tolerance and understanding. We have had terrible examples of intolerance and misunderstanding on both sides in industrial conflicts in this country. We have recently narrowly escaped a catastrophe in Europe, precipitated by intolerance—a catastrophe averted only when intolerance yielded to reason. The same problems of human behavior are to be found wherever men have power to influence the lives of their fellow men.

Genuine Understanding Rare

I know that when I speak of how important it is that understanding be the basis of industrial relations policy it sounds like a platitude; it is old stuff. Most companies assume that an understanding relationship exists between management and employees. And yet I find genuine understanding one of the rarest characteristics in employer-employee relations. Forms or formulas don't create understanding. Costly programs and benefit schemes do not of themselves create understanding. Service pins and foremen's clubs, and beautiful employee magazines do not create understanding. They are only agencies. They can be potent agencies, but only when motivated by a real desire to achieve understanding—a realization that there are two sides to most questions, and a determination to give proper value to each side.

In how many companies today do you suppose that the average worker believes that the management understands or really cares a lot about understanding the problems and difficulties that he is up against? Perhaps you are more optimistic than I am, but my guess would be that there are very few such companies. Plenty of these company managements do care a lot—they have a very genuine desire to do everything possible to carry out their responsibilities as employers, but they are not getting this idea across to the worker.

Why? There are a number of reasons. Some chief executives are content with announcing that the doors of their offices are always open to any employee who feels that he is not getting justice. If they have ever worked in a shop themselves they must know that only the hardiest employees would have the temerity to go over the heads of foreman and superintendent to take their cases to the big boss because they know what would be their fate if they did. Some companies are content to announce their policies on the bulletin board in formal statements, which always carry with them the implication of "take it or leave it." Some executives are so engrossed with problems of finance or sales that they feel, although they want to do the right thing, that they have no time to give to matters of personnel administration, which in some marvelous way that is never quite explained is expected to take care of itself.

Foreman Vital Link

But most frequently the short circuit in understanding occurs at the foreman, and usually the blame for this situation lies not with the foreman but with management. Salesmen, service men, and all who come in contact with customers, are given the most careful training to make sure that they properly reflect the company's policy. But in how relatively few cases is similar training given to foremen. Quite often they are taught how to reduce waste and to stimulate production, but how often are they really taught to build morale, how to interpret company policy correctly, how to act in the finest sense as management's representative with rank and file employees? The foreman is a mighty important link. It is my firm conviction that if we really knew the facts we would find that during the last few years more strikes were caused, and, on the other hand, more potential strikes were prevented by foremen than by chief executives or by any basic questions of company wage or organizational policy.

When real understanding between management and working force is created the rest of your industrial relations policy will take care of itself. When each side has real understanding it can appreciate difficulties and will make allowances. When there is real understanding, points of conflict tend to melt away before a reasonable approach to problems. When there is real understanding, the remaining parts of the industrial relations policy will suggest themselves as means of carrying out the basis of establishing and maintaining sympathetic understanding.

A New Approach

Perhaps this matter of mutual understanding sounds easy, but it's not. In many cases it is very hard because precedents and prejudices have grown up through the years that do not yield easily to a new approach. But it is tremendously worth working for. When I visit plants where it exists I don't need to be told that it exists. I feel it in the air. It is manifest in the whole atmosphere of the place. I have in mind a company, not a small one either, as it employs over five thousand people, which was made a particular target of C.I.O. organization. High pressure organizers were detailed to sign up this company's employees. When they announced to the management they were going to hand out circulars at the plant gate, the management told them to go ahead and do as they liked, and gave strict orders that they were not to be interfered with in any way. With complete lack of opposition from the company one might think that their task would be easy. However, after three months' intensive organizing effort, they had achieved the large number of about fifty members, and they gave the job up in disgust.

(Continued on page 455)

Thank You, Mr. Carlisle

I am proud, indeed, to be asked to address the best trade association the public utility industry has ever turned up. I am happy to be here because the nearest man to me in the operation of the New York City companies, Colonel Fogg, had so very much to do with the setting up of this association.

—Floyd L. Carlisle, chairman of the boards, Consolidated Edison Company of New York, Inc., and Niagara Hudson Power Corporation, at the annual convention of the American Gas Association, Atlantic City, October 13.

The Association's Personnel Program

In his remarks before the annual convention in Atlantic City, October 13, presented herewith, Paul W. Herring, chairman of the Association's Committee on Personnel Practices, outlined the scope of that committee's activities. Organized a little more than two years, the committee has compiled important data on personnel problems in the gas industry and has sponsored outstanding speakers on industrial relations, including the penetrating discussion by Harold F. Browne, of the National Industrial Conference Board, which is published in this issue.

Mr. Herring is director of employee relations of The Peoples Gas Light and Coke Company, Chicago, where he has spent the entire 29 years of his business career. Starting as a clerk in the distribution department, subsequently organizing the stores accounting and payroll departments, and for some 25 years thereafter dealing with personnel activities, is Mr. Herring's record of service with the company. For the past 13 years, he has served as assistant to the vice-president in charge of public and industrial relations. He was made director of employee relations in August, 1937.

Paul W. Herring

THE chief executive today gives more of his time to personnel matters and thus, to a large degree, overcomes misunderstanding and misconception of the ideas and the intent of management.

This distinct change of executive attitude will constantly improve the relations between employees and management. It is a recognized fact that the attitude of the personnel toward the job will be positive when management sells the employee on his future in the industry. Then, and not until then, will there be an improvement in morale.

An employee who is enthusiastic about the future of his industry, and his company as a unit of that industry, feels that he is in a good job and unconsciously reflects his conviction by turning out his maximum amount of work; more quickly grasping the significance of practices, policies, regulations, and occurrences; discovering more effective methods; advertising his company and the striking phases of its product and operations. He is happier in his work because he can feel that his job is secure and that he can move forward with his industry. He will give good service if he receives good training, and good training can be developed only through intelligent direction and sympathetic guidance by his immediate superior.

In recognition of a need in the industry for more information concerning successful methods of management-employee cooperation, the Executive Board of the American Gas Association established the Committee on Personnel Practices. Its duties are to report on the best methods of handling personnel relations and to consider such matters as the proper selection of personnel, the training of all classes of employees, and employees' service plans. Its aim is to develop proper appreciation of these objectives, so as to further the confidence of employees and the active interest of management.

Events during the past three years have broadened the concept of personnel work to make it an integral part of the whole management objective. The need, now, is more study regarding policies on selection, training, transfer and promotion, and other measures that will tend to increase the effectiveness and satisfaction of employees.

The very nature of the committee's activities is such that its most effective work is done without much publicity except to make known its duties and objectives. Its greatest value is the development of material at Headquarters so that when specific questions arise channels are readily available through which an attempt to answer these questions may be made.

But, the direct money-saving items in the personnel program are, of course, of major importance and probably supply ample justification for the work to many top executives. For example, the committee this year suggests in its report* that consideration be given to the establishment of rating systems because of their value in filling vacancies by promotion or transfer, and in adjusting employees who are round pegs in square holes. The committee also suggests consideration of force planning systems for their economic value in the utilization of regular employees to better control slack and peak periods.

We are happy to report special action with relation to the proper use of the income from the Trustees Gas Educational Fund. The recommendation covered awarding of prizes for the best showing in the Home Study Courses sponsored by the Association and conducted by Columbia University and the University of Kansas. The grateful acceptance of each University has been received. It is the hope of the committee that the prizes will stimulate interest in the two courses and increase their value to the industry.

Whenever problems arise, the committee through Association headquarters solicits your cooperation in finding proper solutions. Here are some questions that are becoming of increasing interest:

1. Do employees want information from their employers on the state of

* Available in printed form at American Gas Association Headquarters, 420 Lexington Ave., New York, N. Y.

business, taxation, etc.? Should employers disseminate such information?

2. Is a written statement of company policy regarding personnel desirable?

3. How can the spirit and appearance of paternalism be avoided in developing new elements in personnel relationships?

4. How much are employees entitled to know, or how much should they know from the standpoint of good employee relations, about the wage scale, how base rates are fixed, how merit is rewarded, how promotions are made to positions of higher maximum, and how wage rates are affected by business conditions?

Finally, I would like to say this: The value of personnel administration and its part in management is judged by the economic result attained. Management participation is the potent factor in the success of an employee relations program. It is the life blood that transmutes the thoughts and feelings of workers into action. By its magic touch it injects a force into the organization that often transforms its employees into human dynamos. So, with strong leadership, adequate consideration of right policies, and demonstrated performance of sound employee relations, the industry can expect to reach its objective—viz.: increased *sales* through public and employee acceptance.

Gas Range Boasts of CP Seal in Talking Model Home

All-Gas Talking Home in Dallas, Texas

MODEL all-gas homes, in which gas appliances, furnishings and even the walls spoke for themselves, were featured in "Talking Gas Home" demonstrations sponsored recently in Fort Worth and Dallas, Texas, by the Fort Worth division of Lone Star Gas Co. and the Dallas Gas Co. Estimates placed opening day attendance in Fort Worth at 10,000 people and in Dallas at 12,000, and a banner attendance was recorded during each of the five days the houses were open to the public.

Gas appliances were used throughout the demonstration homes in Dallas and Fort Worth for heating, cooking, water heating and refrigeration. In common with other furnishings of the house, they concealed a microphone through which technicians in a broadcasting control room told their story. Typical was the following statement by the gas range:

"I don't need to do any bragging because every housewife in Dallas knows about the many advantages of modern gas cookery. But I do want to call your attention to my new 'CP' seal. Whenever you see that 'CP' seal, you'll know it stands for certified performance. That means I have qualified with the 22 super-performance standards established by the American Gas Association. . . . . I really don't mean to brag, but honestly I have revolutionized cooking. Moreover I can prove it to you—but nobody pays much attention to me since I have become completely automatic. Even the housewife walks out on me while I do all the cooking."

Approximately 35 Fort Worth firms cooperated in building, furnishing and sponsoring the seven-room colonial type Talking Home in Fort Worth, with the gas company furnishing heating equipment, refrigerator and water heater, and a dealer furnishing the range.

Twenty Dallas firms cooperated in furnishing the Dallas Talking Home, owned and built by George W. Lingwiler, president of Dallas Homes, Inc.

In both cities the talking homes received much newspaper publicity. A five-column picture of the homes and representatives of the cooperating firms was carried by local papers on the opening day.

Fort Worth and Dallas were the eleventh and twelfth cities of the nation to stage the novel Talking Home demonstration, arranged and produced by the Mid-South Talking Homes Co., 1238 Sledge Ave., Memphis, Tenn. In each city where the demonstrations were produced the cooperating firms reported 100 per cent results.

Advance arrangements for the demonstrations were made by representatives of the Mid-South Talking Homes Co., who enlisted the cooperation of the real estate firm, newspaper, utility, and equipment dealers. The promoting company also furnished technicians to conduct the broadcasts during the demonstrations.

A.G.A. Past President, Utility Leader, Dies

AS this issue of the A. G. A. MONTHLY goes to press, word is received of the death in New Orleans, Louisiana, on November 24 of Harry C. Abell, vice-president of Electric Bond and Share Company and past president of the American Gas Association.

Harry C. Abell

Mr. Abell, who was 69 years old, served two consecutive terms as president of the American Gas Association from 1924 to 1926. He is the third past president the Association has lost since its organization in 1918.

He started his career in public utilities in 1889 as an apprentice with the Canadian Pacific Railway. Later he was successively with the Belding Motor Company, Chicago; the Canadian General Electric Company, the Anchor Line and the International Navigation Company. He was connected with Emerson, McMillin & Co., and from 1898 to 1921 with the American Light and Traction Company, engaged in operating public utilities.

In 1921 he became associated with the Electric Bond and Share group, holding many offices. He resigned these offices in 1933, retaining only his vice-presidency in the holding company.

He was a member of the American Society of Mechanical Engineers, American Institute of Electrical Engineers, the National Electric Light Association and the Engineering Institute of Canada.

A Made-To-Order Market for Gas House Heating

By JAMES E. WEST

Washington Gas Light Company, Washington, D. C.

James E. West

NO single item in the program of the Washington Gas Light Company has attracted the interest of visitors more than our operations in a field of new construction embracing a peculiar type of multiple housing units. This specialized activity has been responsible for a load expansion far out of proportion to new building progress, and it is to be hoped that some phases of it might be adapted to the opportunities and requirements of other cities.

House heating is now the recognized basis for volume gains in the domestic gas load, and its wider application is what we all are seeking. It is an increase from that source which has been the most outstanding result of the Washington project.

I am in a position to discuss this subject as a promotional man; the department which I direct is concerned solely with load building through the promotion of gas in new construction, as we realize that the future of our business rests directly in that field. The extent to which we have succeeded in this task is evidenced by these facts relating to appliances installed in all types of residence construction, excepting apartment houses, during the last full building-permit year for which complete statistics are available and shown in accompanying table.

The four-family flat system comprises a large proportion of residential construction in our city; within that group gratifying percentages of the available load for all four appliances have been obtained. With reference to refrigeration in the "flat" classification, it should be explained that approximately half the units included in the study were not provided with any refrigerator, which accounts for the comparatively low percentage designated for that appliance.

A Challenge to the Gas Industry!

The Washington Gas Light Company turns the spotlight on a new gas market which it has created. Through promotion and education of builders, increasing numbers of four-family dwellings are being erected to gas company specifications which include gas for individual heating as well as for cooking, refrigeration, and hot water. The specifications call for a building efficiently designed for heating—and gas heating at that.

This is no Sales Stunt.

A new type of four-family flat has been designed by the gas company, and it permits profitable building operations as well as better living for thousands of families of modest income. With 600 B.t.u. gas at 60¢ per M, gas heating has received general public acceptance among families heretofore untouchable.

It is seen, then, that the four-family flat has become an invaluable factor in our increasing domestic load. And right here may we consider one all-important fact in regard to this business. It was not acquired by mere chance. No-one dropped it into our lap. We *made* that business. Made it, not in the sense with which most of us are familiar, finding the prospect and prevailing upon him to use our product. We had to create the prospect, or rather the customer, where none before existed. We did this by calling into being a type of construction which all but demanded gas to provide the major domestic comforts. That type of building which lends itself almost irresistably to the utilization of gas for heating and other purposes—the four-family flat—was produced as a direct, calculated promotion of the Washington Gas Light Company.

Promotional work on flats is inseparably correlated with that on gas heating generally and, in considering the possibilities for this type of promotion in your own communities, care should be taken to examine the many factors influencing rates, present acceptance of gas heat and, of necessity, the local housing situation. Where auspicious conditions exist, it presents a real opportunity such as we have seen gratifyingly fulfilled.

Flats, so named, are not new; but the flats of yesterday and even those of today in many cities are entirely different from the present Washington product. We have indeed been advised that the term is a detriment, that elsewhere similar structures are called Duplex Homes, Garden Apartments or some other such euphemism. Call it what we may, the type as we know it is clearly defined. It is a two-story, center entrance structure with two dwelling units on each floor. These four family elements can be built in

TOTAL DWELLING UNITS—4883

	Appliances Installed	*Per Cent of Total Available*
Ranges	4289	87.6
Water Heaters	3673	75.0
Refrigerators	1670	34.2
House Heating	2561	52.5

Had we included apartment houses in this tabulation, the refrigeration percentage would be much more favorable, as we obtained 55.2% of the available business in that classification.

The figure on house heating, of course, includes coal installations. The actual ratio of gas to oil was approximately two-to-one in favor of the former.

Address before Metropolitan House Heating Council, American Gas Association Headquarters, New York City, November 16, 1938.

At left—Detached type of four-family flats

Below—A typical Colonial facade

series, all under one roof separated by party walls or entirely detached. A common and, from our point of view, a most important characteristic is that each separate dwelling unit houses its own heating plant. (Among the four-family multiples cited in our statistics were a number served by central plants. These, strictly speaking, are not the type with which our present discussion is concerned and were included merely for the purpose of a more complete analysis.)

This kind of housing is a survival form of an older type involving Arcola heating units. The inconvenience of coal-fired heaters, as well as other defects, is responsible for their enjoying but a relatively brief span of life in our community. Esthetically, too, the original models left much to be desired; with little or no attempt at beautification they offered bare shelter at low cost, with a general increase in the standard of living they rapidly fell into the discard.

Advantages of Flats

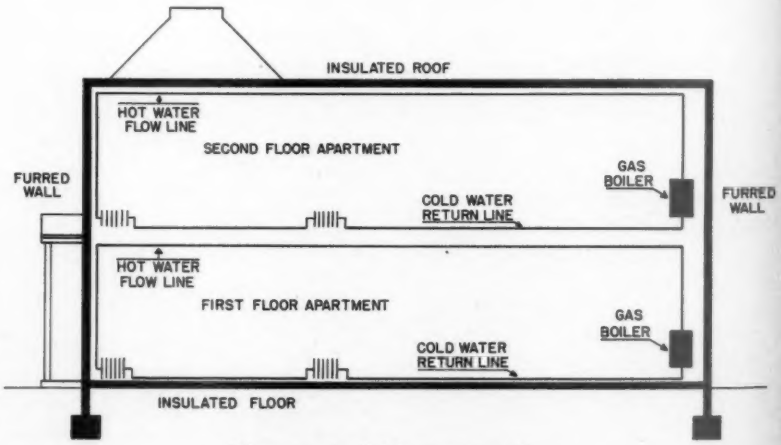
In its restored form, the flat has overcome all the disadvantages of its earlier prototype. From the standpoint of the builder or investor, it possesses attractive advantages which will be described subsequently, offering amazing return on a small outlay of capital. In our Washington experience, the wide geographic distribution and the variety of architectural excellence displayed indicates a broad range of adaptability.

Now for a quick review of the career of this gas heated flat in Washington. Prior to 1930 it was unknown, as was *almost* unknown gas heating of any kind save as a luxury reserved for those of means. In that year, the first important step was taken—a promotional heating rate was made available and its announcement accompanied by the opening of an intensive advertising campaign. A multitude of replacement sales resulted, and within two years a seemingly impenetrable wall of popular resistance had given way.

Progress for the first few years not only justified the initial rate reduction but made possible further cuts in the general domestic as well as the house heating classifications. It must be noted that the significant rate drop came *before* not *after* the advent of volume house heating.

In two years gas heating had become thoroughly launched in our community and we realized an opportunity for the really creative job had arrived. Accordingly, we approached a few operative builders and showed them how it was now possible to re-design the defunct flat with all its profit possibilities in a manner which would "put it over" with the public. The once lowly flat, endowed with one thing which would make it sell (or rent) to the exacting, comfort-loving people of today—a *truly automatic individual heating system.*

By dint of lengthy negotiation, the first units were gotten under way—twelve buildings in all. We participated generously in cooperative advertising, with the result they were rented as fast as they were completed. The builders were impressed. We were delighted. Before us stretched golden fields, awaiting only the sickle of sales effort for harvesting. We were convinced we had something.



Diagrammatic sketch of cross section

And we did. But it was not what we thought we had.

We had *grief*—and plenty of it! We had blundered, and were in for learning a lesson—learning it the hard way, through bitter experience. While considerable time and effort had been spent on selling the flats, it was as nothing compared with keeping them sold. High bill complaints pouring in, threats to remove equipment following in their wake, carefully built up confidence being jeopardized—these were the aftermath of that first flush of triumph. Something had gone wrong. What was the matter? Where had we erred? We made a thorough investigation and uncovered the simple truth: The *flats were not being built properly!* Appalling heat losses were being incurred through faulty methods and inadequate materials. We had been *right* in telling our builders what to build, but wrong in not telling them *how* to build.

Having learned our mistake, we at once set about to correct it. And, the remedy seemed plain: Steps had to be taken to conserve those precious B.t.u.'s flowing through walls, through floors, through roofs. The remedy, though plainly indicated, was not simple in its application. Eventually, however, the obstacles were all removed through careful study, and, with the intelligent cooperation of the builders, standard practices became established.

View of row-type apartments

To quickly summarize the installation problems, let us look at this section through a typical four-family flat. (See accompanying illustration.) This, like all the others in our city up to the present time is a hot water heating system. We have explored with manufacturers the possibility of adapting air conditioning as well. The units are available and in time we shall probably come to use some of them.

Detail of typical kitchen

It will be noted that these walls are furred—that is, a dead air space has been left between the masonry and plasterboard. There is little or no excavation—accounting in part for low construction costs—so the floor immediately above the ground must be insulated. This is done by the installation of rock wool between the joists, held in place by wire mesh and weather paper. Thus, cold air coming through the vents and passing under the floor will not penetrate to the rooms above. The second floor ceiling area is, of course, insulated in the standard manner, four inches of rock wool between the joists. Now, please note the over-head flow lines and under-foot returns. These are wrapped with insulation to minimize the escape of unutilized heat.

Gentlemen, I hope that, as we were recently told by an enthusiastic visitor, we *have* found something that the gas industry as a whole can profit from.

So well have we educated builders on the advisability of constructing for heat conservation that throughout the territory in all types of houses furred walls, insulation, weatherstripping and caulking are regularly specified—all reflecting the pioneering work of the Gas Company.

Having answered the question of economical heat for flat units, we were in position to provide dependable consumption estimates. Over a period of time their accuracy has been a potent factor in the mounting acceptance of gas heat. We can confidently say to a prospect that the best guaranty of an estimate is the record of seventeen thousand gas heated homes, where, in the overwhelming majority of cases, consumption is *lower* than we predict.

EDITOR'S NOTE—

At this point in his prepared paper the author showed a tabulation of 110 gas bills in two of the new four-family flat areas substantiating his point that gas heating bills were lower than predicted in a great majority of cases. To conserve space these bills have been averaged, with the following results:

Among the first four-family flats erected in 1931 housing a group of 55 families, the average estimated bill for heating was

$70 per season. Actual results for heating the average flat were:

1935-1936	$54.65
1936-1937	46.89
1937-1938	45.63

These data were not corrected for degree days.

By 1935, experience had shown that the heating estimates could be set at more conservative levels, and for a group of buildings erected at that time, also housing 55 families, the average estimated bill was set at $52. Actual results were as follows:

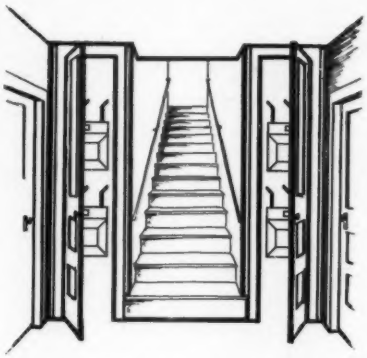
1935-1936	$47.23	4,740 degree days
1936-1937	41.28	4,207 degree days
1937-1938	40.02	4,257 degree days

As to our subsequent experience with flats, once the problem of fuel costs had been solved the demand increased, and many more builders hastened to embrace the new opportunity. And now, after five years test, this type of housing is still signed up for well in advance of completion, even though apartment vacancies are now at a relatively high level in Washington.

Influence on Replacement Field

We consider the promotion of flats of far-reaching importance to our future business. Whereas it requires public acceptance of gas heat to gain a foothold in this specialized field, the increasing popularity of flats makes for greater public acceptance of gas heat and has influenced the replacement field as well as that of new construction. Those who have enjoyed the benefits of gas heat in a flat are apt to specify it when the new home envisioned for the future becomes a reality. This offers the reassuring promise of keeping flat dwellers on our books as all-gas consumers. By this same token, our builder clients, whose first experience with gas heat was on a flat project subsequently offered considerably less resistance to it for other types of construction.

We have to this point considered some of the more general aspects of flat promotion. We have seen in it the means of often supplanting centrally heated apartments (which at best would afford us only the kitchen load), with the type of construction wherein it is almost mandatory to employ gas for heating. With individual space heating comes also individual water heating, which should be invariably gas.



Front entrance hall, showing convenient meter location.

And what of the kitchen load in the flat type of housing? While that will often be a promotional problem in itself, it will be conceded that the chances of getting cooking and refrigeration appliances installed are greatly improved by the presence of gas service for other domestic uses.

Thus this market, which to many of you might be new, need not be considered entirely from the heating standpoint. On the contrary, with year-around water heater and kitchen appliances demand also assured, this type of business can bolster the summer load, thereby tending to level the seasonal curve. In Washington we have made real progress in selling flat builders on all four major appliances, as a "packaged" ensemble.

Low Distribution Investment

On the economic side, flat installations represent the highest potential sendout per distribution dollar invested of all domestic classifications. The average frontage of a flat building is forty feet, which means but ten feet of main per consumer. Only one service is required for four consumers; and, because the meters are located in the front of the premises, the length of service pipe is materially reduced. Accessability of the meters in a public entryway facilitates reading and eliminates call-backs, thereby further reducing operating expenses.

It will be seen that, on the whole, a profitable class of business is available from this type of construction. It might be added that multiple equipment orders produced by flat building demand constitute the kind of volume business welcomed by our dealers and distributors, whose cooperation should improve accordingly, resulting in another definite, if indirect, advantage to the utility.

Now, if all this appeals to you as worth while, what can you do to cash in on it? In the first place, if your community is ready for such housing —and you are the best judge of that— *you* must blaze the trail. It is up to you to lead your operative builders. And they will only be led by the promise of profit. You must unfold the flat idea from *their* viewpoint, not yours. To that end, you must know it from *their* angle.

Profit for Investors

What are some of the facts which will interest them? Flats require a minimum of cash to finance them. The average cost on the basis of Washington's standards is from $9500 to $10,000 for each four-unit structure. It is now possible to borrow $8500 to $9500 on such a building. This means that the smaller operator can be attracted. The speculative element is almost excluded, because we are dealing with conservative rental property. (Of course there is always the danger that unscrupulous speculators will attempt to exploit a legitimate venture. It is in the Gas Company's interest to discourage their operations, because the shoddy methods they employ often result in a hazard from the standpoint of economical heating.)

There is ample profit for the careful investor. Many of the Washington units have sold for $13,000 each, and the retail demand is exceptionally good. As a source of income, the flat property is ideal. Rentals approximate $2,000 a year for the four units, which would easily amortize a $10,000 investment in ten years, in addition to yielding a fair return. If the same amount of money were put into a single family dwelling, the income would be but little more than half of that, with a greater vacancy risk.

Contrasting flats with apartments, we find the overwhelming advantage of the former is on the side of maintenance. Heating and hot water expense are, of course, eliminated; and, if these appliances are gas-fired, the utility company relieves the owner of

(Continued on page 454)

First "Life Home" in America Uses Gas for 4 Big Jobs

WITH the inauguration of the great nationwide housing program by *Life*, gas service scores another first. This time it's the first Life Home to be built in America which will use gas for the four big jobs—cooking, water heating, house heating and refrigeration. Leading off a program designed to dramatize to the American public the last ten year's of building progress, the selection of gas as the fuel for the major household jobs, is another indication of the preferred position of gas in the modern home.

Home at Massapequa, L. I.—first in the national Life Home program

Designed by H. Roy Kelley, of Los Angeles, who was a member of the prize-awarding jury in the American Gas Association's architectural contest, the first Life Home, was built at Massapequa, L. I., New York. It is one of the eight home designs which were dramatized in the September 26 issue of *Life* which devoted 22 consecutive editorial pages to a human interest presentation of the program. It was designed for the $3-4,000 income group. The owner and builder is Harmon National Realty Company.

The purpose of the Life House program, according to the announcement, is "to show how the 1939 model house is better than yesterday's, to educate the public in all phases of home ownership, to increase the construction of well-designed, soundly built houses." A detailed technical presentation of the program appeared in the November issue of *The Architectural Forum* which is cooperating in the program. In addition there is being conducted an extensive merchandising program with local tie-ins throughout the country with leading department stores and subdividers.

Briefly, the program undertaken by *Life* embraces the following points: Four actual families, each representing a different income group, ranging from $2,000 to $10,000 and widely separated geographically in Atlanta, Philadelphia, Los Angeles, and Minneapolis, were selected to make their individual housing problem a laboratory test tube. Eight of the nation's foremost architects were commissioned to design actual homes for these families. Two alternative houses were designed for each family, one of traditional style and the other of modern design. These were the eight house designs which *Life* presented September 26.

Following these designs, houses are now being built throughout the country by independent builders authorized to use the original architect's working plans and call the houses Life Houses. While the house at Massapequa, L. I., is the first to be completed, at this writing other Life Houses are under construction in the following cities:

Baldwin Manor, Pa.; Glenburnie, Va.; Washington, D. C.; Leimett Park, Calif.; Edgewood Park, La Grange, Ill.; Fulton Park, N. Y.; San Francisco, Calif.; Greenwood, Md.; Chatham Village, Pa.; Chestnut Hill, Mass. (suburb of Boston); Delwood Park, Wis. (suburb of Milwaukee); Oak Knoll, Ga. (suburb of Atlanta); Viewridge Addition, Wash. (suburb of Seattle); Lyndhurst Park Estates, Ohio (suburb of Cleveland); Rockford, Ill.; San Diego, Calif.; Teaneck, N. J.

A significant feature of the program is that builders of Life Houses are not required to use any particular product or material. However, reports indicate that gas will play an important part in many of these Life Houses. Names of builders and other pertinent information are being supplied to local gas companies by the American Gas Association. Additional information may be obtained by communicating with The Architectural Forum.

A "FREEZE DERBY"

There have been all kinds of contests but here's a new one. The *Fort Worth Press* in cooperation with the Lone Star Gas Company is offering its readers two up-to-the-minute gas circulators and a bathroom heater as prizes for the three most accurate guesses as to the day, hour and minute of the first freeze in Fort Worth. The contest started October 17.

The Gas and Electric Building in gala attire for the round-up. Thousands of persons observed the special CP range show windows

Drama and Showmanship Win Applause for Gas Ranges in Rochester

A CP Success Story

WHEN the Rochester Gas and Electric Corporation from August 22 to September 30 repeated its successful "Old Range Round-Up" of the previous year, with many new features added, it had a new story to tell the housewives. It was the story of an amazing new development in cooking appliances—the birth of the Certified Performance Gas Range with its 22 points of mechanical perfection.

How well the story was told by Frank M. Houston, sales manager of the company, and his able assistants, may be gathered by a glance at the accompanying pictures which show the major features of the campaign. Mr. Houston, as chairman of the Domestic Range Committee of the American Gas Association, is also directing the national promotional campaign on the CP range.

Starting with newspaper "teaser" advertisements and radio announcements some days before the round-up got under way, and reaching a climax with a huge parade which traversed not only the downtown business district but also the city playgrounds and residential districts, the campaign aroused tremendous enthusiasm and resulted in many sales.

Section of the main floor where local range dealers displayed their gas ranges

The CP gas range float which led the parade

Registering desks where housewives signed up for free paring knives

The puppet show which was put on every half hour

Walter McKie, assistant to Mr. Houston, holding a colored truck sign

Salesmen dressed as Indians and cowboys, added much color and fun to the festivities. Children were given rubber balloons and knives were given away to women who registered at home service meetings. A nationally known troup put on a puppet show, and other events added to the interest and spread the news of the CP range.

The main floor of the company's building and the basement also carried out the carnival effect. There local range dealers showed their ranges, garnered prospects and did more educational work. More than 50 dealers participated in the campaign.

Special inducements offered buyers of old range turn-ins helped accelerate sales. As a result hundreds of old ranges now lie peacefully in the old range cemetery of the company, and hundreds of new CP ranges are bringing smiles of satisfaction to the faces of Rochester women.

The "Old Range Round-Up" was, in fact, a CP Range Success Story.

Bertha Sherman and Jane O'Connor, of the home service department

CP gas range exhibit at the Rochester Exposition

A window display list of cooperating dealers

East Avenue display window

Frank Houston, chairman, A. G. A. Domestic Range Committee, and two store representatives during the round-up

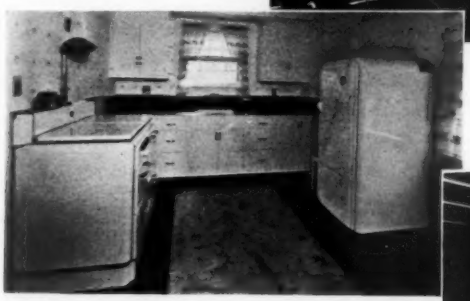
Model All-Gas Home Attracts 120,000

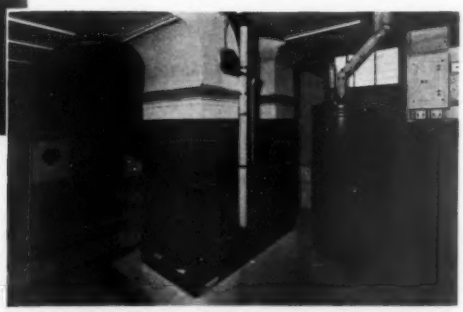
A MAJOR feature of the annual Own Your Own Home Show held at Elizabeth, New Jersey, October 10-15, was the award of the $12,000 model home shown in the accompanying illustration. It was given away along with a low-cost home valued at $5,250.

Equipped with gas appliances for the four big jobs—cooking, water heating, house heating and refrigeration—the model home served as a compelling demonstration of the comfort, convenience and economy of gas service. Open for daily public inspection from August 20 to October 15, it was visited by more than 120,000 persons, living in more than 450 cities and towns in every state in the Union. Hundreds of inquiries and many sales leads were received by the Elizabethtown Consolidated Gas Company which cooperated in the program.

The home is the fourteenth to be built by the Elizabeth Chamber of Commerce Exposition Co., Inc., since 1925.

Shown above are a few of the thousands who flocked to see the model home





Above—A shining modern gas range and gas refrigerator were outstanding attractions in the kitchen

The basement, with its compact gas house heating and water heating units, was greatly admired for its neat and roomy appearance

Part of the display of the Elizabethtown Consolidated Gas Company at the Own Your Own Home Show. This model gas plant was flanked by model kitchen and basement displays

Gas Utilization Practices Discussed at World Power Conference

N. T. Sellman

THE present status of gas utilization in the United States was outlined before power experts from countries all over the world when papers by N. T. Sellman, assistant to vice-president, Consolidated Edison Co. of N. Y., Inc., Eugene D. Milener, secretary, Industrial Gas Section, American Gas Association, and C. George Segeler, utilization engineer, American Gas Association were presented in English, German and French before the Vienna Sectional Meeting of the World Power Conference, Germany, August 25 to Sept. 2, 1938. American progress in developing improved gas-burning equipment, American rate practices aimed at stimulating gas consumptions in the newer fields of utilization, and American preferences for gas as over and against other fuels, were stressed.

Household Gas Does More Than Cook in U. S. A.

Mr. Sellman's paper, "Gas For Household Purposes", noted that approximately 80,000,000 individuals in some 16,000,000 American homes enjoy gas service, with the result that American gas companies (both manufactured and natural) in 1937 enjoyed a gross revenue of $532,000,000. In addition there are over 400,000 active domestic users of bottled gas service in rural and suburban areas where no piped gas is available.

"The use of gas in the home today is probably more widespread in America than in any other country," observed Mr. Sellman by way of introducing separate discussions of the use of gas for each of the 4 big jobs —cooking, water heating, house heating, and refrigeration. All of these uses, except cooking which for some years after the turn of the century was the only major use and "the backbone of the industry," are relatively new and have been brought about by aggressive and "extensive educational programs extending over many years."

Considerable emphasis was laid upon the American trend toward automatic operation of gas appliances. For example, five years ago only 68% of the domestic gas ranges were sold with automatic oven heat control. Today the percentage has increased to 84%. Further, almost every gas range sold in the past five years incorporated automatic top burner lighting. Rapid general improvement of appliances in recent years is indicated by efficiencies, beauty, flexibility and convenience features.

Refrigerator Acceptance

The first practical household gas refrigerator was introduced in 1927. Now the number in operation is 1,500,000, and sales are increasing each year. In the words of the speaker, "This outstanding public acceptance of the gas refrigerator is highly satisfactory to the gas industry, especially when it is considered that electric refrigerators had been promoted for more than five years previous to the introduction of the gas unit."

Hot water, for which there are some 150 important uses in the modern home, is responsible for a husky fraction of the American gas industry's domestic sendout, taking second place only to cooking. And when it comes to house heating, we find gas doing the job in a total of more than 2,000,000 homes. "Promotional work in the sale of house heating equipment is being intensified each year and the outlook for substantial increases in this use of gas is very promising," Mr. Sellman said.

Paralleling the development of domestic uses for gas other than for cooking, it was noted that a development of "block" or "promotional" rate schedules, designed to stimulate the newer uses, has taken place. This type of domestic rate makes gas cheaper for the home owner who uses it for more than one job. In effect, it sets one rate for cooking, another for water heating and refrigeration, and a third for house heating.

In conclusion, Mr. Sellman stated, "The future outlook is very satisfactory. While there is competition from electricity for cooking, and while the market is keenly competitive between oil, coal and gas for heating and water heating, gas fuel at present enjoys a distinctly advantageous position."

Improved Equipment Spurs Industrial and Commercial Gas Usage

The presentations of Messrs. Milener and Segeler constituted separate parts of a combined paper on "Small Industrial and Commercial Gas Utilization." Mr. Milener's section covered "Gas for Small-Scale Industries in the United States"; Mr. Segeler's "Commercial Cooking Practices in the United States."

"There are over 142,000 factories in the United States," Mr. Milener pointed out, "and it is estimated that between 80% and 90% of these establishments come under the classification of 'small-scale industries.' . . . . Also, there are very few of these small-scale industries that do not use heat in connection with their manufacturing, other than for warming buildings." Quite a market, indeed, for industrial gas!

Following up his comments on the extent of the use of gas in industry, Mr. Milener outlined outstanding recent trends in the design of industrial gas appliances. Complete mechanization of functions has characterized appliance development to the extent that "gas furnaces have, in effect, ceased to be furnaces but have

gradually become heating machines." Savings in labor, increases in rates of production, and decided improvements in product uniformity have resulted from this mechanization of industrial gas-using apparatus.

The rapid growth of high efficiency immersion heating of molten metals and other liquids in this country was noted, along with American advances in the art of crucible melting of non-ferrous metals. Considerable discussion was given to the advantages of three relatively new types of industrial heating with gas which are assuming commanding importance in the field: namely, convected air heating for ovens and furnaces, gas radiant tube heating, and indirect heating through muffles containing prepared furnace atmospheres.

Also emphasized was the value of careful canvassing of industries and analysis of markets, not only for stimulating industrial gas sales, but for guiding the establishment of effective industrial gas rate schedules.

Increased Gas Use Predicted

"Research and development . . . . as well as the economic position of the gas industry with respect to competitive fuels, indicates that a substantial rate of increase in the use of gas in small-scale industries will continue for some years to come," predicted Mr. Milener in his concluding remarks.

Mr. Segeler introduced his paper with the observation that "gas energy is the most widely accepted form of heat for commercial cooking processes in the United States." The tremendous use of gas in American commercial cooking is partly accounted for by the tendency of American families to "eat out" frequently, plus the remarkable variety of cafeterias, luncheonettes, lunch counters, diners, soda fountains, "hot dog" stands, etc. peculiar to this country.

A statistical breakdown of the 250,000 commercial kitchens in the United States was presented, 60% of the total proving to be the kitchens of restaurants, cafeterias, etc. A gas-consumption and cost-per-meal analysis was also made of the commercial cooking establishments in one representative small American industrial city.

The development of commercial cooking equipment in this country was traced. Improvements in thermal efficiencies, as well as specializations of appliances (and appliance sections) for specific cooking tasks, were emphasized. Special counter and accessory equipment also came in for comment. To indicate the relative importance of various types of gas cooking appliances, Mr. Segeler offered a summary of the gas load distribution among the different types of appliances for seven representative cases. Significant was the trend away from the use of the heavy-duty range as the *sole* unit in commercial kitchens.

The fine cooperation between the Food Service Equipment Industry and the Gas Industry in the United States, resulting in mutual advantage to both, constituted the theme of that section of the address devoted to the marketing of commercial gas cooking equipment.

The closing remarks were devoted to the use of gas in air conditioning and commercial refrigeration. Said Mr. Segeler, "Since a large part of the United States is subject to extremes of summer temperature and high humidity, there has been great interest in the application of humidity control independent of temperature by means of gas-fired dehumidification systems. Within the last year, also, commercial refrigeration by gas has increased rapidly and walk-in and reach-in types of refrigeration units have been equipped with commercial gas cooling. These are now installed in restaurants, butcher shops, florists, etc. The ready acceptance of this new application of gas carries a most significant message. It shows that the American commercial kitchen operator not only has confidence in the use of gas for conventional heating operations but feels that the technological advances of the gas industry are so rapid that to use gas and to be modern are synonymous."

Water Heater "Prize Parade" Sales Contest Ends

OCTOBER 31 brought to a close the "1938 Prize Parade," the most extensive and successful promotional campaign for the sale of automatic gas water heaters ever projected throughout the United States.

From every standpoint this year's campaign far exceeded that of any previous year. New highs were hit in the number of sponsor manufacturers and there was unprecedented participation on the part of utility companies and plumber dealers.

Thirty manufacturers, representing approximately 95 per cent of the producers of gas water heaters in this country, cooperated in making this promotional endeavor possible. Nearly 900 utility companies or divisions thereof were registered in the "Prize Parade." These utilities, representing 12,600,000 gas meters in 47 of the states and in the District of Columbia, exceed by 150 the number of gas companies registered in last year's campaign (The Golden Faucet Contest). These 150 companies meant an increase of about 1,300,000 meter customers in the campaign's potential market.

The "Prize Parade" enlisted the support of nearly 30,000 plumber dealers. To these dealers were sent over 1,700,000 pieces of promotional literature telling how full and profitable advantage could be taken of the 1938 campaign. That these sales-helps fulfilled their purpose is evidenced by the constant flow of prize-redemption certificates that has been coming into campaign headquarters since the close of the 1938 project. At the time this is being written it is impossible to estimate the number of recipients of prizes there will be this year. Although the campaign closed on October 31, prize certificates can be redeemed as late as November 30. Present returns indicate that prizes will go to thousands of registered participants.

The Water Heater Committee of the American Gas Association in collaboration with water heater manufacturers of the Association of Gas Appliance and Equipment Manufacturers is now planning sales promotion plans for 1939.

J. R. Stetser Dies

JESSE R. STETSER, New York metropolitan manager of Roberts & Mander Stove Company, passed away November 7, following an emergency operation.

Mr. Stetser joined the Roberts & Mander Stove Company in 1925 as New Jersey sales representative and was later made New York manager following the death of Harry P. Dains in 1930. Mr. Stetser was also assistant secretary and a director of Roberts & Mander Stove Company.

Rates That Get the Business

Donald A. Henry

These significant observations on rate trends were made by Mr. Henry, chairman of the A.G.A. Rate Committee, at the annual convention in Atlantic City, October 12, as an introduction to the annual report of the committee. The complete report is available in printed form at Association headquarters.

By DONALD A. HENRY

Stone & Webster Service Corporation, New York, N. Y.

THE honor is mine, as chairman of your Rate Committee, to present to you today the annual report of the 18th consecutive year of endeavor of that committee. The committee now known as the Rate Committee was appointed originally in 1920 as the Rate Structure Committee.

Volumes have been written, filled with fine spun rate theories but, after all, you and I know that the one important test of any rate is: "Does it get the business?"

The committee's earlier years included an exhaustive study of basic principles. This culminated in 1926 in the issuance of "Principles of Rate Making for Gas Companies." In that volume you will find a complete presentation of the underlying principles of cost analysis which should determine the fundamentals of the rates upon which your business rests.

Meeting the Practical Test

After these many years of work, your committee concludes that, in general, rates which meet the test of proper adherence to the cost curve, likewise meet the all important practical test—"Does it get the business?" This is not to say that all rates must show a slavish adherence to exact cost curves, nor that such rates would inevitably result in your securing the maximum coverage of your market. Therefore, your committee, while continually urging over the years the necessity of cost analysis, has likewise continually urged attention to those practical considerations which infuse into the lifeless form of a theoretically correct rate the warm blood of humanity.

The report of the committee this year is devoted in part to a survey of progress. Such a survey must be made periodically if we are to profit by past experience and direct our future so as to avoid the mistakes of the past. In the words of my illustrious ancester, Patrick Henry—"I have no way to judge the future but by the past, no light to guide my footsteps save the light of experience."

Humanizing Trend

What, then, does this survey of the past reveal? In the report of the Rate Committee you will find a table showing the percentage relationships of different types of rates over the past 24 years. Six types of rates are analyzed there. Though the figures speak for themselves they also tell a story—a story of the effort of the gas industry to humanize itself. In this table and succeeding tables you will note the rise and fall in prevalence and popularity of different types of rates—and sometimes the complete disappearance of a rate form. Study these tables and their story will be very plain. The charts illustrating these rate trends graphically will also be interesting.

But there is another kind of story which may be read from our rates—the story they tell to our customers. Do your rates talk to your customers—of course they do—just as surely as your salesmen do. What they say is up to you.

We may liken a rate to a human being—a human being which we as gas company rate men and executives create to represent us to the public. Correct attention to fundamentals provides the firm, accurately articulated, skeleton which, clothed with the flesh and blood of practical philosophy and fair dealing, results in a personality—a personality that reflects your own and your company's attitude.

None of us would care to shake hands with a skeleton—neither do our gas customers understand or want to deal with a cold and lifeless rate structure. We confine our human contacts to the warmly alive human being—whose features we recognize and whose characteristics are the same as our own. Why, therefore, should we not try to make our rate structures look as familiar to our customers as old friends? How should we do this? By moulding the necessary basic facts into forms familiar to them—in other words—by making them talk the customer's language. It can be done.

A Rate Dialogue

What do our rates say in these conversations with our customers? Here comes one of the old Straight Line Rates—a little decrepit now from the many hard knocks he has had, but still erect and challenging. Yes, he is the challenge of the gas industry to its customers. He says, "Here I am, a little stupid maybe, but still inflexible. Buy my service if you will, but the more you use the more you pay. I dare you to make full use of gas service." Not a very pleasing person to meet. He was a doughty warrior in his day, but I'm afraid he hasn't long to live.

Whom do we see next? Well if it isn't our old friend, the Service Charge Rate! *Our* friend—yes—but is he the *customers'* friend? His story runs about like this. "Well I've analyzed my costs and that analysis tells me that as soon as I connect you to my lines you represent a certain out-of-pocket cost to me. I propose to assess you that cost each month whether or not you use any of my product. True, if you do use it I will sell you what you want at exactly what it costs me to make it, but I

don't care whether you use it or not. When I get out of you my readiness-to-serve cost, as represented by the service charge, you can take it or leave it." At least he's frank about it, but he doesn't have much attraction for the customer. He will deal as fairly as a judge on the bench—and he has just about as much popular appeal.

But don't we have anybody representing the gas company to the customer who will present a more human attitude than these two fellows? Let's see—here's another—the Small Initial Block Rate. A gas customer is talking to him.

Talking Customer's Language

"Mr. Rate, I'm living in an apartment and want to cook with gas—I won't use much gas. Later on I may move into a house and there I'll probably do quite a lot of cooking. I shall want hot water service and likely refrigeration, and if the service is satisfactory, I may heat my house with it. What will it cost me to do those jobs?"

"Well Mr. Customer, I know the gas business and I think I know how much gas you'll use for those various jobs. However, there is so much variation between you and your neighbors that I'd hate to hazard a guess as to how much it will cost you specifically. Tell you what I'll do—I'll sell you the small quantity of gas you'll need in the apartment at a price that will be less than its value to you measured in terms of its advantages, but I'll have to charge you a pretty high rate for that small quantity. Later on when you get ready to have me take on those other jobs I'll make you a real price on them—each additional job I take on will cost you less and less."

"Go ahead, Mr. Rate, connect up my apartment and I'll think about the other. I did hope you could give me a little more definite information about it. My trouble has always been that I don't understand heat values and cubic feet and all that stuff in your rates. Why can't you make me a rate based on the things I do know about—meals to be cooked, water to be heated, rooms to be heated, etc?"

And why can't we? Perhaps we can at some not too distant date. If you'll read the committee report you'll find a suggestion for doing that very thing for commercial and industrial customers. From there to the domestic customer is just a step.

A study of these tables from the customer's standpoint will show that we've come a long way on the road we may call "human rate making." Much remains to be done. Our rate makers must be imbued with the customer's viewpoint. They must adopt the customer's psychology. Our salesmen must be equipped not only with persuasive sales arguments but with rates that make the customer want to buy—not have to be sold. Rates should look familiar to the customers—they should not have to be explained and explained—these explanations frequently leaving the customer as bewildered as before.

It remains for future Rate Committees to lead us farther and farther along that road, which should lead eventually to complete understanding and harmony between the company and the customer. To the time when our rate schedule will say:

"I am designed to meet the needs of *your* business. I am expressed in *your* language in terms familiar to *you*. You will see at once that I am offering you a superior service at a price well within its value to you as measured in terms of the job you want to do."

When that day comes we will have done as much as a rate schedule can to meet the challenge: "Does it get the business?"

Mystery Chef's Radio Program May Get National Hook-Up

The Mystery Chef

THE committee in charge of the gas industry's national advertising program has been asked by the directors of Regional Advertisers, Inc., sponsors of the Mystery Chef radio program, to include that program in plans for national advertising starting with July, 1939. The directors believe that the broadcasts have been so successful on a regional basis that the Chef's talks and recipe book should be made available to the entire industry over Coast-to-Coast network facilities.

The corporation has notified companies presently participating in the radio program that it will be unable to continue the program on and after the expiration of present contracts, November 24.

Before his association with Regional Advertisers, Inc., the Mystery Chef was on the air for the Davis Baking Powder Company for more than four years. During that time he received letters averaging one from every four families in the United States. When he came to the gas industry he was already a welcome "visitor" in thousands of homes throughout the country and a sincere and ardent enthusiast for gas cooking.

The Mystery Chef's program for the gas industry started by electrical transcription on Syracuse and Rochester, New York, stations on December 3, 1935 and by "live" broadcast the following day on eleven other stations in the East. The original territory covered extended from Washington, D. C., to Portland, Maine, and from New York City to Buffalo, New York. Later Cleveland, Ohio, and six cities on the Pacific Coast joined the program. In the meantime, electrical transcriptions were made available to companies outside the territory reached by the "live" broadcast. The Chef personally has given a total of 312 talks of fifteen minutes each since he has been on the air for Regional Advertisers, Inc., not counting the repeat broadcasts made for the Pacific Coast companies.

A feature of the program has been the free offer to listeners of the Chef's recipe book entitled "Be an Artist at the Gas Range" and a pamphlet containing sixteen pages of recipes not included in the former book. Listeners to the program were obliged to call in person at the office of the nearest participating gas company to receive this literature. The distribution of the recipe book has been about 2,200,000 copies and the supplement 625,000 copies. Other literature, including the Chef's Four-Dollar-a-Week Menus for Four Persons, has been distributed by the thousands. In addition, the broadcasts have brought forth an enormous volume of mail from enthusiastic listeners.

Since the inauguration of the gas industry's national advertising program, the Mystery Chef's talks have tied in closely with the themes, slogans and other features of the campaign. The directors of Regional Advertisers, Inc., believe that the Chef's enthusiastic endorsements of gas fuel and his successful recipes should now be made available to the entire industry on a national basis.

At right—Awaiting a chopping bowl to prepare corned beef hash his style, Walter Slezak, musical comedy star, with cigar in hand, watches Paul S. L. Hilken, dealer in securities, stir the makin's of hunter's goulash, while Gelett Burgess, author of "Look Eleven Years Younger" exhibits his concoction termed Apple Mess, ready for the oven

At left—Cartoonist Will B. Johnstone samples the Pennsylvania sausage that Cartoonist Jolly Bill Steincke (in chef's uniform) is cooking to serve with Pennsylvania scrapple and potato pancakes

Above—Major H. C. Brenizer, U. S. A., Fort Slocum, New York, heating garlic in fat for Army Russian dressing to serve with Pretzel Alley Spaghetti

Amateur Cooks, Celebrity Class

MATERIALIZATIONS of the gourmet's dream dish were sampled by metropolitan reporters and judged by epicures when 27 prominent New Yorkers went into action in the men's gas cookery contest sponsored by the American Culinary Federation, Friends of Escoffier Society, and Board of Directors of the Hotel Governor Clinton, November 15.

Operating the hotel's heavy duty ranges for quantity production and two domestic ranges provided by the American Gas Association, the hobby chefs evidenced a lofty disregard for time and economy—two important factors in the enlightened homemaker's kitchen.

Loving labor went into the mysteries of preparation. One full box of cloves studded a ham in even stripes; when the whites of eggs were measured carefully into a sauce, the yolks went expertly down the sink—widening the eyes of women reporters and sending shudders through the hovering spirit of the late Escoffier.

Enthusiasm for the novelty of cooking in gigantic hotel utensils over the expanses of heavy duty ranges soon waned in favor of the ranges designed for Mama's kitchen.

Gelett Burgess, painstakingly composing a dish he termed Apple Mess, requested an oven heat of 250 degrees. There was no argument. Hadn't his test apples burned the night before?

But, uneasy to the point of pinning to Chef Burgess' ear the timid suggestion that if those apples failed to brown he'd better turn up the heat control, representatives of the gas industry thought it best to unfold their coats and quietly slip away.

They read in the newspapers that Author Burgess won a Certificate of Award.

At right—Captain Clifford MacGregor, mineralogist and Arctic explorer, cooking the filling for his "Explorers' Special" or Brazil Nut Pie

Modern British Gas Practices

By S. J. BEALE

West Gas Improvement Co. of America, New York, N. Y.

The author of this paper recently returned from a three-month visit to Europe and presented his observations before the operating division of the New England Gas Association at Worcester, Mass., on October 28. When in London, Mr. Beale attended the annual meeting of the Institution of Gas Engineers as official representative of the American Gas Association. The paper was necessarily quite comprehensive and some of the highlights only are included here.—EDITOR

S. J. Beale

BEFORE going into the developments which have taken place in Great Britain it is well to give you an idea of the relative size of their gas industry as compared with the American gas industry. All figures given in the paper are United States units.

From these figures you will note the British have no natural gas. In fact coal gas is their essential plant with water gas as an auxiliary, chiefly for peak loads, or to balance coke stocks for economic reasons. More than 60% of the gas supplied by British gas works is made in continuous vertical retorts.

YEAR 1936

	Great Britain	United States	
		Manufactured Gas	Natural Gas
Consumers	10,775,444	9,704,000	8,771,000
Gas Sold—Millions Cu.Ft.	309,936	343,262	1,214,579
Coal Carbonized—Tons	20,534,000	6,904,000	—
Gallons oil used—(chiefly for Water Gas)	39,008,000	469,279,000	—
Employees	120,000	135,000	
Investment	$1,100,000,000	Nearly $5,000,000,000	
Gas Sales per Customer—Cu.Ft.	28,700	35,400	179,400

Sales per customer are low as compared with yours, but there is only a negligible amount of central heating, although gas fires are in great use. An Englishman told me in great glee that he has a central heating system which is a great joy to him because "When I get up in the morning the house is at a comfortable 50° F."

While there are many changes in gas works equipment, which are of interest, particularly coal carbonizing plants, in my comments I am especially referring to continuous vertical retort installations.

Settings

The producers are fitted with Venturi type blowers for burning breeze, the steam-air mixture passing into the producers through a feed which extends across the width of the top grate plate.

Ventilation

On one large plant the platform at the producer charging level was of the usual solid chequer plate and extended to the retort house wall all around the bench. This was also true of the platform at the top of the retorts. Thus dust from the coke discharge was not permitted to rise many feet and bench side wall radiation was diverted to windows in the retort house walls before it reached the top charging level.

I saw a system of ducts which blows air to the charging platforms and, on the same plant, another series of ducts which draws air and scurfing fumes from this platform and discharges them into the bench chimney. There is also a vacuum system which has many inlets for taking dust from platforms to a central point; this is now superfluous as there is another method for preventing dust from reaching the platforms.

Dust-laden air is sucked from the coke-discharging buggy through canvas bags by means of a motor-driven fan, the dust amounting to 1½ to 3 pounds per ton of coal carbonized.

Retort House Design

Owing to the proximity of gas plants to residential areas and also to enhance the appearance of gas plants and to further public relations a great deal of thought has been given to retort house design, usually to weave it generally into the pattern of the local surroundings. There is one in Largs, Scotland, which has the architectural features of a baronial castle, complete with turrets. Another will have the outward appearance of a distinguished business building, complete with external clock and flagpole.

I saw one plant where the undersides of platforms and general steel work in the retort house were painted with aluminum. It brightened up things tremendously.

Coke Ovens

The only gas works having coke-ovens is the Beckton plant of the Gas Light and Coke Company of London. This company is believed to be the largest in the world and has at least one installation of practically every type of commercially successful gas plant.

Processes between Retort House and Holder

With the exception of benzole extraction I shall only outline processes which differ from those generally employed in this country.

Electric tar precipitators are coming into more general use, and those who have them are very enthusiastic about them.

Gas drying, chiefly by the calcium chloride process is fairly general, and there is at least one glycerin drying plant.

Gas holders are generally of the column guided or spiral guided, or waterless types; in that order I believe. One of the latter of large capacity, has been built at the Dagenham plant of the Ford Motor Company and is welded throughout. There are a few spherical pressure holders; spiral guided holders are still popular, as evidenced by one recently constructed at Sheffield and having a capacity of eight million cubic feet. The Institution of Gas Engineers has a Committee on Gas Holders and also regulations concerning their painting. There is now in force the Factories Act of 1937, which requires careful examination of holders.

Practically all new station meters, particularly on large works, are of the Connersville type.

Ammonia recovery is still being practiced, but mostly on the larger works and with very small profits.

The practice of small plants concentrating their ammoniacal liquor and shipping to central plants appears to have ceased.

It has been suggested that ammonia from gas works can be used as a refrigerating medium. There is in operation at Tottenham an ammonia refrigerating plant for cooling the circulating oil of the benzole plant. Due to the lower temperature of ammonia as compared with water, benzole extraction is more complete.

The ammonia market causes gas engineers much trouble in finding a way to dispose of their liquor. Some is diluted and suitably disposed of. There are cases where it is used on producer grates, but this is not very satisfactory due to smell as well as disintegration of brickwork and about 10% reduction in the life of grate plates.

Benzole Extraction on Gas Works

Benzole recovery for motor fuel from gas at coke ovens, gas works and tar dis-

tilleries increased from 47 million gallons in 1934 to 61 million gallons in 1936. This increase is explained by a duty on imported petroleum products of 6.7¢ per gallon in 1928, which was increased to 13.3¢ in 1935, and to 15¢ a month or so ago.

According to the Falmouth report on "Oil from Coal" published in February 1938, almost all coke oven plants extract benzole—from 97.9% of coal carbonized in 1936 in which year gas works extracted benzole from 47.3% of coal carbonized, which latter figure yielded 12 million gallons of refined motor spirit.

The total of 61 million gallons of refined spirit is only 4% of total requirements. The report continues that if all gas works scrubbed for benzole at the efficiency of coke oven scrubbing a further supply of 42 million gallons of crude benzole would be available.

The yield of crude benzole from coke ovens is a little over 3 gallons per ton of coal and from gas works, 2.4 gallons per ton. Due to refining losses these yields are reduced by about 15 per cent.

It is unusual for the smaller plants to extract benzole and one authority gives a minimum size of plant as 20 millions per year with horizontals and 40 millions per year plant with verticals.

In the general range of send-out gas 450 to 475 B.t.u., there is a loss of 15 to 20 B.t.u. per cubic foot when scrubbing for benzole, and additional coal must be carbonized to make up this loss.

In a plant at Berkhamsted making 100 millions per year, the total cost of 1 gallon of benzole, including capital cost and repairs, was 13.4¢ which was sold at 19.6¢ and yielded a profit of 6.2¢.

There is a great desire in Great Britain to reduce the sulphur content of gas as low as possible, even to 3 grains per 100 cubic feet. Much can be done by washing with very much larger quantities of oil than is required for benzole stripping. Although this method is sometimes used it is not really satisfactory, and better methods are being sought.

In England there is competition from government subsidized electricity, but in spite of this the gas industry in that country is progressing. In 1937 their output increased by 1% over 1936, and if the building of new plants is any indication, and there is no part of Britain in which I did not see many plants being built, this year will be a very satisfactory one.

Oil from Coal

Under the heading of "Benzole," I have shown that petroleum imports to Great Britain are necessary.

To foster the production of petroleum products from indigenous materials, government aid is given to this potential industry by the imposition of duties on imported petroleum.

Various investigations and reports have been made and it is from two of them that I quote. They are the report of the Subcommittee on Oil from Coal of the Committee of Imperial Defense. This report was published in February, 1938 and is familiarly known as the Falmouth Report after Lord Falmouth, chairman of the subcommittee. Also the report "Labor's Plan for Oil from Coal" which was prepared by a Committee of the Party and published in June, 1938.

Synthesis Process

The process consists of conversion of the so-called "synthesis" gas, a mixture of one volume of CO and two volumes of H_2 into an oil product, and it can be divided into three stages 1.) Gasification of Coal, 2.) Purification of gas, 3.) Synthesis of hydrocarbon oils.

Primary products are a mixture of approximately the following proportions by weight: Light condensible hydrocarbons (butane, propane, pentane, etc.) 8%; motor spirit 50%; "Diesel" oil 39%; paraffin wax was 3%. By cracking the "Diesel" oil it can be transformed into motor spirit yielding 80% of the oil by weight, or 31.2% of the total synthetic products. Added to the motor spirit fraction a total motor spirit yield is obtained of 80% by weight of synthetic products.

The gasification of 4 to 4½ tons of coke gives one ton of synthetic products and requires carbonization of 5.3 to 6 tons of bituminous coal. Stated another way the carbonization of one ton of bituminous coal gives 53-61 gallons of liquid products from which 43-49 gallons of motor spirit can be obtained. During the making of coke another two to three gallons of benzole are obtained.

The motor spirit directly obtained is of mediocre quality and has a maximum octane number of 68. However, the primary products are a source of the hydrocarbon gases known as olefines from iso-octane can be obtained.

The "Diesel" oil is of the highest quality, having a cetene number of 100 compared with 65 for first-grade "Diesel" oils from petroleum.

There is a British company named Synthetic Oils Ltd., which is erecting a plant of their own design to treat 150 M cubic feet of gas per day.

In this system direct use is made of blue water gas and of a catalyst which is claimed to resist the effects of sulphur. It claims higher yields of a superior quality of most products as compared with the Fischer-Tropsch process and the Labor Party claims that the whole of British colliery output could be processed.

To date there is operating in Great Britain only a Government Research Station pilot plant of 100 cubic feet per hour synthesis gas capacity and there are not available reliable figures of yields and costs.

Coal

The British gas industry is having to pay more for its coal under a government controlled coal "Quota" system which also includes higher prices, an increase of 33% in the past two years. So they are having their troubles, too, and although they were receiving higher prices for coke a year or two ago there is a reduction in coke returns which now is more than absorbed by the increased cost of coal.

Coal carbonized in 1936 in the gas and coke oven industry was 43 million tons, and yet 34 to 45 million tons are burned annually in open grates—mostly soft coal, too. You will note how close these figures are to each other. What a potential market for the gas industry both as to smoke abatement and for its own gain! Something should be done about it. Well, something *is* being done about it, and if the gas industry doesn't do it quickly enough on its own initiative the Parliament will probably legislate against the smoke nuisance.

Gas Utilization

Gas is used quite extensively in crematoria, for heating and lighting a number of swimming pools, for illuminating dummy cops and tennis courts. It is being used to drive buses and trucks, but not extensively, although several gas companies are using creosote for this. The most recent use of gas, of which I am aware is in radios.

Honored on Retirement

Wallace B. Gribble

ALMOST 1000 business associates and other friends participated in honoring Wallace B. Gribble when he retired Oct. 15 as general superintendent of the Hope Natural Gas Co., Clarksburg, W. Va. He had served Hope and affiliated companies for 30 years.

Five different banquets were held, climaxed by a joint assembly at the Washington Irving High School auditorium, where the principal address was delivered by Harold G. Hoffman, former governor of New Jersey. S. E. W. Burnside, secretary of the company, acted as toastmaster and gave the employees' tribute to Mr. Gribble. President H. C. Cooper spoke from the management viewpoint; R. W. Gallagher, director of the Standard Oil Co. of New Jersey, presented felicitations; A. F. McCue, counsel, on behalf of the 2100 employees of the Hope group, gave Mr. Gribble a diamond ring and a scroll.

Responding to these praises and gifts, Mr. Gribble said the friendships he had built among the company employees were the most treasured possessions of his life. He will devote his new leisure to his five farms, totaling some 600 acres.

Joseph M. Low, city plant division manager, was general chairman of the committee in charge of the testimonial to Mr. Gribble.

Charles C. Reed, assistant superintendent, will succeed Mr. Gribble.

American Standards Gain Wide Recognition in 20 Years

Dana D. Barnum

WITH a membership of 71 national organizations and approximately 2,000 companies, the American Standards Association on the occasion of its twentieth anniversary in October reviewed the history of its growth and looked with optimism to a future of service to industry. Writing in its official publication, *Industrial Standardization*, Dana D. Barnum, past president of the American Gas Association, and retired president of the Boston Consolidated Gas Company, who heads the A. S. A., said in part:

"For five years I have been intimately connected with the work of developing national industrial standards and safety codes, first as a member of the board of the American Standards Association, and for the past three years as its president. During these years industry has had to combat economic havoc of a major depression. It has fought these conditions by increased efficiency of production and distribution made possible by the development and use of standards. . . .

"The methods of the A. S. A. have given practical results that have stood the test of time. American Standards and Safety Codes are accepted everywhere. The safety codes form the backbone of state industrial regulations.

"During the past three years more than 20 national organizations have affiliated with the A. S. A. The Association, by request of the interested groups, has enlarged the scope of its work into new and important fields—the development of standards for consumer goods, the development of traffic standards, the prevention of occupational disease hazards. . . . Over and over again in these years business and government groups have turned to the machinery of the American Standards Association for a forum in which to work out important mutual problems. . . . I have never heard a criticism of the fundamental soundness of the methods of work.

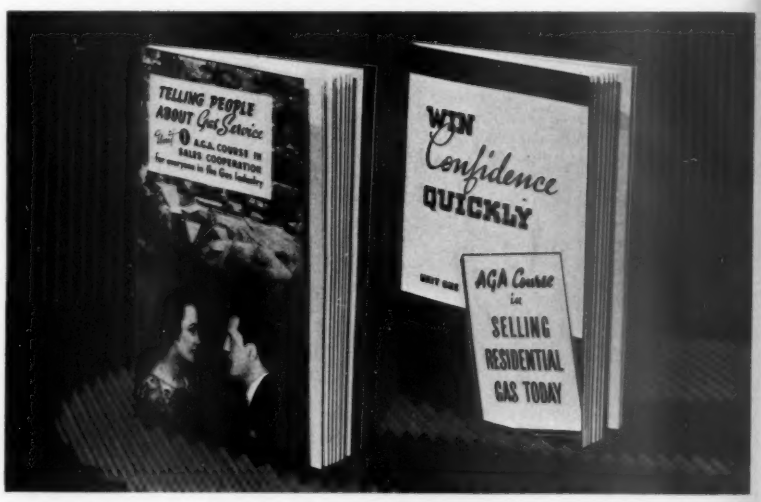
"American Standards and Safety Codes are widely accepted because they are arrived at by comprehensive representation and cooperation between the industrial and governmental groups concerned. . . . Standardization has proved to be one of the most fruitful fields in which government and industry can cooperate to the end of increasing production, reducing costs, and eliminating waste.

"How about the future?

"Production today has been estimated to be nowhere near the needs of the people of the United States. To meet these needs, production, distribution, and utilization costs will have to be reduced. Waste of all kinds must be eliminated. Industry has the knowledge and experience to work out the cost end of this problem; but I doubt if it can do it alone without the intelligent cooperation of government. Intelligent and efficient administration by regulatory bodies of standards and codes drafted in cooperation with industry, in accordance with experience and knowledge of the underlying principles of production, distribution, and utilization, should make possible what neither industry nor government can accomplish alone.

"The American Standards Association must continue to provide ways and means of establishing standards that industry will accept, and codes that regulatory bodies can enforce. . . . It must confine work to the necessary things. Above all, it must be sure that every substantially interested group—public, government, and industry—is fairly represented in the work."

New Cooperative Sales Courses Get Under Way


TELLING PEOPLE ABOUT Gas Service
A.G.A. COURSE IN SALES COOPERATION
WIN Confidence QUICKLY
AGA Course in SELLING RESIDENTIAL GAS TODAY

Gas load builders throughout the country are now using the books pictured above, first sections of the new A. G. A. courses

DURING the last week in November, companies which have already enrolled in the new American Gas Association courses in "Selling Residential Gas Today" and "Sales Cooperation for Everyone in the Gas Industry" began their first classes.

There seems to be no doubt in the minds of executives familiar with these courses that they are the most readable and interesting as well as the most practical instruction in sales that has yet come the way of the industry. The first unit of each course has been distributed to the enrolled men, attracting their instant attention because of the striking format and stimulating illustrations. The course for salesmen is illustrated with skillful pen and ink drawings; that for the general employees is illustrated with photographs.

In addition to the texts for the enrolled men, each course includes a guide for executives in charge of the activity, and meeting manuals for the use of group leaders in holding classes based on the texts.

Enrollments for both courses are now coming in steadily and it is expected that the large majority of gas companies will avail themselves of this essential low-cost instruction.

The course in "Selling Residential Gas Today" brings to the salesman up-to-date tested methods for building a steadily growing volume of sales to satisfied customers.

The course in "Sales Cooperation for Everyone in the Gas Industry" enables the enrolled gas company to tap the valuable potential power of its employees in paving the way for greater sales through their business and social contacts. It provides the information and stimulation necessary to unify the entire personnel behind the sales activity.

The Association has prepared detailed descriptive brochures on these two courses which are available, without charge, to any interested gas company executive.

Employees Honored at Service Emblem Dinner

Thomas Moore

Joseph Lawson

George Schmitt

William B. Greene

William E. Smith

Fred Kranz

Leonard J. Calandra

Fred W. Heckmann

Michael O'Malley

George Woll

Patrick Graham

AT a dinner attended by approximately 680 persons, The Brooklyn Union Gas Company on November 3 honored employees who have completed a quarter century or more of faithful service and employees who, in the past year, performed meritorious services in other ways. The dinner was the fourteenth in the series of Service Emblem dinners held annually since 1935.

Win McCarter Medals

Eleven of the employees, shown in the photographs above, were awarded McCarter medals, bars or certificates by the American Gas Association for successful resuscitation involving the use of the Schafer prone pressure method. McCarter medals were presented to the following: L. J. Calandra, P. A. Graham, William B. Greene, F. J. Kranz, J. P. Lawson, T. J. Moore, George Schmitt and W. E. Smith. A McCarter bar was presented to Frederick W. Heckmann who previously had received a McCarter medal and was being honored for life-saving a second time. M. F. O'Malley and G. P. Woll received McCarter certificates for their assistance in prone pressure resuscitations.

In a letter to Thomas N. McCarter, donor of the McCarter medals, Clifford E. Paige, president of Brooklyn Union, expressed his company's appreciation of the stimulus to life-saving which the McCarter medals provide. Mr. Paige wrote as follows:

"Recently we had our annual Service Emblem night. As always, the presentation of the McCarter medals to our employees was a solemn yet inspiring ceremony.

"In introducing this feature of the program, I took occasion to tell the 680 of our people who were present of the significance and effect of your generosity. I told them that there were 170 people alive in Brooklyn today only because someone knew what to do in an emergency.

"All our people are trained in prone pressure resuscitation. The interest never lags. Our teams compete annually.

"Back of it all lies the inspiration of the McCarter medal. Your kindness has, I believe, contributed greatly to service as an ideal with the employees of all gas companies.

"For the company and for myself, I wish to express thanks and appreciation."

In addition to McCarter awards, other employees were honored for meritorious service in emergencies. Two of these employees received the President's medal of the National Safety Council.

Meter Readers Honored

Also honored were the three members of the Holder Division team which won the 1938 prone pressure contest, 22 meter readers who had read in excess of 20,000 meters without error in the past year, three chauffeurs who have avoided accidents for five years, and 28 employees who as members of the championship teams or as individual stars distinguished themselves in sports.

One hundred eighty-two employees received Service Emblems this year. In the group were two men who have been in the company's employ for 55 years and six others who have completed a half century of service. The 50-year men received checks representing a year's salary, in addition to the emblems.

The gold buttons also were presented to 11 men who in the past year completed 45 years' service, to seven who completed 40 years, to 14 who completed 35 years, to 63 who completed 30 years and to 79 who completed 25 years. Two women, Miss Fleurette Alman and Mrs. Mary C. Breithut, were among the 25-year employees.

The 55-, 50- and 45-year awards were presented by President Paige. Vice-President B. G. Neilson made the presentation to the 40-, 35- and 30-year men, and Vice-President Hugh H. Cuthrell presented the 25-year emblems.

Southern Executive Is Dead

WALTER REID, board chairman of the Southern Union Gas Company, and several other companies in the southwest, died suddenly November 3. He was 40 years of age.

The career which Mr. Reid began as production superintendent for the Oklahoma Natural Gas Company in 1915 made him research engineer and gas superintendent of the Lone Star Gas Company in 1921, consulting engineer in 1925, and in 1929, board chairman of the New Mexico Eastern Gas Company, New Mexico Gas Company, Southern Union Gas Company and Southern Union Utilities Company.

He invented the Reid vapor-tension apparatus to measure gas pressure.

He was a member of the American Institute of Mining and Metallurgical Engineers, American Association for the Advancement of Science, American Society of Mechanical Engineers, American Gas Association and American Petroleum Institute. He was a fellow of the Royal Society of Engineers, London.

Unique "Magic Fire" Promotion Sells Gas By-Product

By MURIEL C. HENRY

IN carrying the "Magic Fire" of petroleum briquets to every home in Seattle during the fall months, Seattle Gas Company under the direction of James F. Pollard, president and general manager, is endeavoring to triple its sales of this by-product of its oil gas plant. The distinctive advertising campaign which has as its goal the sale of 30,000 tons per annum of petroleum briquets opened September 6 and is continuing into December.

Based on the sound merchandising plan of demonstration to the consumer, the campaign presents some novel ideas in advertising. Notable among these is the use of "Spectrolux" billboards which give the impression of a moving display but the illusion is created through the use of lights and color. This type of billboard display is being used for the first time on the Pacific Coast.

Teaser Ads Used

"Magic Fire" campaign opened with a week of "teaser" copy—"Watch for the Magic Fire," "Magic Fire Coming"—in all media, newspaper, billboard, street car, radio, and airplane trailer. Art work in illustrations portrayed a magician beside a flaming fire but the theater page newspaper advertising pictured a theater marquee with the billing, "Magic Fire Coming." Newspaper cartoon teasers were used, the words in the balloon being read only when the newspaper was held up to light.

Following the "teaser" copy, the Seattle Company's advertising campaign identified the "Magic Fire" of petroleum briquets, combining the identification with sales copy. Daily newspapers carried 7-column by 18-inch advertisements, some in two colors, followed by smaller insertions. Street car cards included "Believe It or Not" statements about Seattle, followed by facts and sales copy on petroleum briquets. Dash boards on street cars also were used.

Three radio stations with national hook-ups carried 30-50 word commercial spot announcements between network programs. Billboard posters, in 24-sheet size, are being used during the campaign. Other media included for complete coverage of Seattle residents are theater slides in neighborhood theaters and direct mail inserts in monthly statements.

With the revelation of the meaning of the campaign on September 13, the corps of Seattle Gas Company demonstrators and salesmen began their visits to Seattle homes. Each demonstrator carried a petroleum briquet fire in a specially constructed insulated container. At the conclusion of his exhibit of the fire and the talk on the merits of petroleum briquets, he gave the housewife a coupon entitling her to a free demonstration in her own equipment as well as a present of 100 pounds of briquets. The coupon was valid for a limited period, and the gift of the briquets was contingent upon the briquet fire being built in the customer's own equipment.

Response to the first three weeks of the campaign brought as many as 500 requests a day for demonstrations, and it was found necessary to slacken the schedule of advertising to enable the demonstrators to cope with the requests.

It is estimated by Mr. Pollard that the campaign will cost the Seattle Gas Company approximately $20,000, including the sales department's expenses as well as the cost of the gifts of briquets.

Historic Governor's Mansion Modernizes with Gas

The Governor's Mansion in Richmond, Virginia. Insert—A view of the modernized kitchen

RECENTLY, for the first time since it was built in 1810, the Governor's Mansion in Richmond, Virginia, stood spic and span throughout, minus time-worn ragged edges, ready for occupancy by Governor James Price and his family. And, of course, gas service in the kitchen is an essential part of the new comforts and conveniences sorely missed by the Governor's predecessors in recent years. There are also a gas clothing dryer, ironer and laundry stove to speed up and improve efficiency in the mansion laundry.

Except for air-conditioning and refurbishing in the modern manner, the mansion may now be termed up-to-date. Still there is nothing streamlined or anachronistic to mar the Colonial effect; nothing that would shock earlier Governors or distinguished guests of the 1800's.

The project for this historic mansion was conceived by Thomas Jefferson, the third Governor of the Commonwealth of Virginia, but building was delayed and it was first occupied by Governor James Barbour in 1813 only a few months after Governor George William Smith and scores of leading Richmond citizens perished in the Richmond Theater fire nearby.

The following inscription of the mansion recalls some of its past for the modern historian:

"On this spot have lived four Presidents of the United States, Jefferson, Monroe, and Tyler, each of whom served as Governor, and William Henry Harrison while his father, Benjamin Harrison, signer of the Declaration of Independence, was Governor. Here also lived Governors Patrick Henry and Henry Lee, father of Robert Edward Lee. The present house first occupied by Governor James Barbour in 1813 has been the home of chief executives of Virginia since that date. Here have been entertained Lafayette, King Edward VII when Prince of Wales, Presidents Taylor, Hayes, Cleveland, McKinley, Roosevelt and Taft, Lord Balfour, Marshals Foch and Petain, General Pershing, and the daring airmen, Lindbergh and Byrd."

Personal and Otherwise

Named Home Service Group Chairman

Gladys Price

MISS GLADYS PRICE, home service director of the Southern California Gas Company, has been appointed chairman of the Home Service Committee by F. X. Mettenet, chairman of the Commercial Section of the American Gas Association.

Miss Price has been director of home service for the Southern California Gas Company for six years. Previous to that time she was, for three years, home service director for the Central Arizona Light and Power Company in Phoenix. Following her graduation from the home economics department of Oregon State College, she taught home economics for a time in the public schools of Los Angeles, Portland and Seattle. This was followed by a period in which she organized the home economics department for the Seattle *Daily Times*.

Miss Price directs a home service department of 17 in the Southern California Gas Company, and is a past chairman of the home service group in the Pacific Coast Gas Association.

On Advertising Committee

H. CARL WOLF, president of the Atlanta Gas Light Company, Atlanta, Ga., has been appointed a member of the American Gas Association's Committee to Conduct National Advertising. The appointment was made by Major T. J. Strickler of Kansas City, chairman of the committee.

Mr. Wolf will represent the territory south of Virginia and east of the Mississippi River.

New Consulting Firm

WALKER W. STEVENSON, Erick Larson, and Alva O. Greist, engineers well known in the public utility, coal, metallurgical and related industries, have organized the consulting engineering firm of Stevenson, Greist and Larson, at 270 Broadway, New York City. Problems of plant design and operation, appraisals, tax studies will be handled for industries, utilities and others concerned with the development, production and utilization of manufactured and natural gas, steam and hydraulic power, industrial power, mining and metallurgical projects.

The gas industry uses the newest advertising medium to emphasize the modernity of gas cookery. Here is one of the airplane messages used by the Consumers Gas Company during the Reading (Pa.) Fair. The photograph was taken by J. C. Smith, Jr., son of the company's sales manager, J. Calhoun Smith

Accepts Teaching Post

Elizabeth Sweeney

ELIZABETH SWEENEY, formerly head of home service work in the Empire Gas and Electric Company, has resigned to accept a position as instructor in household technology at Syracuse University, Syracuse, New York.

Miss Sweeney will conduct a special course in home economics with special emphasis on home service for girls training for business positions. In an equipment course, obligatory for all sophomore students and transfer students in junior and senior classes, she will assist Mrs. Prudence Connor, head of the household technology department, in the study of gas as a fuel and its use for domestic purposes.

For a number of years Miss Sweeney was a member of the Home Service Committee of the American Gas Association, serving as chairman in 1937.

J. F. Murray To Retire

IN poor health since he underwent a major operation last year, J. F. Murray, manager of Southern California Gas Company's southern division, headquarters at Compton, California, is retiring shortly from active service, it was announced in November. His place will be taken by G. W. Carbee, now purchasing agent.

Mr. Murray is one of the oldest members in point of service in the Southern California Gas Company organization, having completed his 28th year with the company last January. During all but seven years of this time he has been in his present position. A native of St. Louis, Missouri, he worked for the Laclede Gas Light Company of that city for a number of years before coming to California in 1909.

Gas Meters in 1861

AN interesting report by the Inspector of Gas Meters of New York State published in the *American Gas-Light Journal*, March 15, 1861, shows that even in those early days, the gas meter was regarded as a fair and accurate measuring device. In reporting to the State Assembly on February 7, 1861, Inspector George H. Kitchen said:

"I have tested 29,227 meters, and 44 proving apparatus, used by the gas companies in the State, since I entered upon the duties of this office.

"I regard the gas meter, as at present constructed, as fair and correct a measure as any other used in commerce; and if accurately adjusted, when put in use, it cannot possibly register against the consumer.

"When out of order, a meter may, and often does, allow a portion of the gas to pass through it unregistered, but in no case can it indicate a greater quantity than is actually measured."

The inspector also pointed out that "companies furnishing rosin gas, are selling the same at three dollars and fifty cents per 'standard' of five hundred cubic feet, or at the rate of seven dollars per one thousand feet."

Gas Is Preeminent in Australia

THE annual address of the chairman of the Metropolitan Gas Company states that in its territory, Melbourne, of 3744 new residences erected during the year, 3701 have gas ranges, 2918 gas water heaters and 3269 gas wash coppers.

A large number of the new homes have all gas equipment, cooking, water heating, space heating, refrigeration and laundry work.

The Australian plant of the Electrolux gas refrigerator has been doubled in capacity and the company was forced to import from England a number equivalent to its allotment from the factory.

The sale of domestic appliances increased by 23.5% over the preceding year which in itself was an increase over the preceding year of 28.8%, representing an increase in the sale of domestic gas appliances in three years of 142.8%.

William Zepf Dies

WILLIAM GEORGE ZEPF, formerly cashier of the Consolidated Gas Company of New York, died November 15 at his home in Brooklyn. He was 72 years old.

Mr. Zepf was born in 1866 at Hyde Park, New York. He joined the Consolidated Gas Company of New York (now known as Consolidated Edison Company of New York) exactly 49 years ago on November 18. His first job was that of general clerk, but promotions followed and in 1915 he was made assistant cashier of the Consolidated Gas Company and of the Astoria Light, Heat and Power Company. He was appointed cashier of both companies in 1924. He retired in January, 1936, after 47 years of service.

Charles K. Heebner Is Dead

CHARLES K. HEEBNER, construction manager of United Engineers & Constructors Inc., and an employee of U. G. I. system companies for 32 years, died in Philadelphia on November 14. He was 54.

Mr. Heebner was born in Montgomery County, Pa. Following graduation from Worcester County Public School, he entered Drexel Institute in 1901, and was graduated from the mechanical arts and electrical engineering courses.

On June 18, 1906, Mr. Heebner began his association with the U. G. I. system, entering the employ of The Philadelphia Gas Works as a street clerk. While with that organization he became assistant fitter foreman and fitter foreman. In 1910, he went to the Northern Indiana Gas & Electric Company, Hammond, Ind., as shop foreman.

In 1912, he became engineering assistant of the People's Gas Light Company, Manchester, N. H., and, in 1917, superintendent of the Wyandotte County Gas Company, Kansas City, Kansas. In 1918 he became erecting engineer of the J. A. P. Crisfield Contracting Company. When that company was merged into United Engineers & Constructors Inc., Mr. Heebner became construction manager of the new company.

Plaque Honors Memory of John S. DeHart

MAPLEWOOD, N. J., leaders of social, civic and fraternal organizations recently attended the unveiling of a bronze plaque in memory of John S. DeHart, Jr., a township committeeman for 19 years. At the time of his death on December 24, 1937, he was a director of the American Gas Association, chairman of the Finance and Control Committee and chairman of the A. G. A. Laboratories Managing Committee.

The plaque, presented by Maplewood citizens, is on the wall at the entrance to the meeting hall in the Municipal Building. It was unveiled by Township Committee Chairman Milo S. Borden while Mrs. DeHart stood at his side. In the short ceremony which followed three speakers extolled him for outstanding qualities as a leader in local and national affairs.

Former Brooklyn Union President Dies

James H. Jourdan

JAMES H. JOURDAN, a director of The Brooklyn Union Gas Company of which he was formerly president and chairman of the board, died November 25. He was seventy-four years old.

Mr. Jourdan became president of The Brooklyn Union Gas Company in 1914, thirty-two years after starting as a laborer in the street division. Although his father, the late General James Jourdan, was an executive of the company, Mr. Jourdan preferred starting at the bottom. He succeeded his father, as president of the company.

While working, Mr. Jourdan went to school at night and was soon made foreman. In 1895 he became chief engineer of one of the company's divisions, and in 1910 vice-president with the title and duties of chief engineer, in which capacity he had charge of the rebuilding of the Metropolitan, Citizens, Nassau and Williamsburg Works. During his presidency all the subsidiary companies of the system were merged into one.

Mr. Jourdan served as president until 1934, when he became chairman of the board. He was chairman until 1937, when he retired from active business life, but continued as a director of the company.

He was a member of the American Gas Association and the Society of Gas Lighting.

Convention Calendar

DECEMBER

4-9 American Society of Mechanical Engineers
Philadelphia, Pa.

5-10 National Exposition of Power and Mechanical Engineering*
Grand Central Palace, New York, N. Y.

12-14 Joint Conference on Accounting
Palmer House, Chicago, Ill.

1939

FEBRUARY

16-17 New England Gas Association
Hotel Statler, Boston, Mass.

MARCH

19-24 Southern Gas Association
S. S. Rotterdam

APRIL

24-28 Missouri Association of Public Utilities

MAY

1-4 U. S. Chamber of Commerce
Washington, D. C.

2-4 Pennsylvania Gas Association
Sky Top Club, Sky Top, Pa.

24-26 Association of Gas Appliance and Equipment Manufacturers
Roosevelt Hotel, New York, N. Y.

JUNE

5-9 Edison Electric Institute
Waldorf Astoria Hotel, New York, N. Y.

6-7 Canadian Gas Association
Hotel Connaught, Hamilton, Ont.

9 Empire State Gas & Electric Association —Gas Operating Group
Park Central Hotel, New York, N. Y.

* Includes exhibit sponsored by A. G. A. Industrial Gas Section.

Accounting Section

H. A. Ehrmann, Chairman H. W. Hartman, Secretary F. B. Flahive, Vice-Chairman

Joint Accounting Conference Will Be Held in Chicago, December 13 and 14

PLANS for the Joint Accounting Conference are rapidly nearing completion. The conference will be held at the Palmer House, Chicago, Illinois, on December 13 and 14. In addition, many specialized committees will hold separate meetings on Monday, December 12.

The Accounting Section of the American Gas Association accepted the invitation extended by the Edison Electric Institute to hold a joint conference this year that would be wholly devoted to the major problems now facing the respective industries. In addition to this sponsorship, the American Institute of Accountants and the Controllers Institute of America are cooperating and contributing to the success of the program.

Economy Theme

Generally, three outstanding themes will dominate the discussions: "Economies in Accounting Processes"; "Plant Accounting and Depreciation Problems"; "Accounting Education, Training and Ethics." Questions of taxation accounting will also be given prominence, as well as the use of budgets from the management's viewpoint.

The accountants participating in the conference will have the privilege and opportunity of listening to some of the foremost authorities in the accounting and related fields. Among the outstanding speakers will be Charles W. Smith, chief, Bureau of Accounts, Finance and Rates, Federal Power Commission, Washington, D. C.; Dr. E. W. Morehouse, of the Public Service Commission of Wisconsin and chairman of the Accounting Committee of the National Association of Railroad and Utility Commissioners, and R. C. Staebner, Internal Revenue Bureau, Washington, D. C. Mr. Smith's subject will be "Problems in Uniform Utility Accounting," and Dr. Morehouse will speak on "Federal and State Regulation and Management Attitudes." Mr. Staebner's topic will be "Depreciation for Federal Income Taxes."

An address of welcome will be made by George F. Mitchell, president, The Peoples Gas Light and Coke Company, Chicago. The informal dinner gathering on Tuesday evening will be addressed by Dean H. B. Dorau, professor of economics, New York University, on the subject of "Impact of Economics on Accounting." This group will also be addressed by Bernard F. Weadock, vice-president and managing director of the Edison Electric Institute. The toastmaster will be Alexander Forward, managing director of the American Gas Association.

Committee meetings to be held on Monday, December 12, include the following: Classification of Accounts; Depreciation; Plant Accounting and Records; Customers' Relations, Commercial Accounting and Collections; Purchasing, Stores and Transportation, and Statistical.

Following is a list of topics which will be discussed Tuesday and Wednesday by prominent accounting authorities:

Accounting Organization Problems
Elimination of Duplication of Reports to Governmental Bodies
Accounting Education, Ethics and Training
Depreciation for Federal Income Taxes
By-Product of a Commercial Department Job Standards Investigation
Taxation Accounting
Federal and State Regulations and Management Attitudes
Plant Accounting and Records
Continuing Property Records and Original Cost Determination
Legal Aspects of New Uniform Accounting Systems
Methods of Installing Continuing Property Records
Practical Experience in Original Cost Determination
Perpetuation of Original Cost Records
Coordination of the Accountant and the Engineer in the Determination of Original Cost
Aims and Purposes of the Work of the Depreciation Committee
Causes of Property Retirements
Depreciation Concepts and Principles
Present Views of Authority on Depreciation
Some Engineering Factors Affecting Obsolescence
Customers' Deposits—Economics
The Auditor's Viewpoint of Public Utility Accounting
The Budget, An Executive's Viewpoint
Problems in Uniform Utility Accounting
An Accountant Is Perplexed
Materials and Supplies, Velocity and Salvage Operations

Accounting Section Holds Organization Meetings

H. A. Ehrmann
Chairman, Accounting Section

MORE than fifty persons attended the organization meetings of the General Accounting, Property Records, Customer Accounting and Customer Relations Committee of the Accounting Section on November 14 and 15 at the Belmont Plaza Hotel in New York City. Ninety-eight per cent of the members of these committees were present.

In outlining the activities for the Association year each Chairman stressed the development of reports for the Spring Conference, the Natural Gas Convention and the Annual Convention and also the preparation of interim reports and special articles for the AMERICAN GAS ASSOCIATION MONTHLY.

The General Accounting Committee, under the chairmanship of H. C. Moore, Jr., Cambridge, Massachusetts, will undertake a study of defining the line between maintenance and capital items, the allocation of indirect and overhead charges, the preparation of data for uniform questionnaires, the method of relating promotional costs and results and certain phases of income tax accounting and other items.

There was a lively discussion of property record systems at the meeting of the Property Records Committee, of which O. H. Ritenour, Washington, D. C., is Chairman. It was the consensus of the committee that the work for the year should be divided into five parts, namely; Units of Property, Establishment of Inventory of Existing Property, Pricing (Original Cost), Establishment of Continuing Property Record, and Perpetuation of Continuing Property Record.

H. E. Cliff, Newark, New Jersey, Chairman of the Customer Accounting Committee, said that his committee will undertake a study of the merits of specialized opera-

tion by several employees versus the complete handling of a given number of customers' accounts by one employee, the comparison of stub, loose leaf, and register sheet plan of customers' accounting, and the preferred collection treatment for good paying customers. The committee also plans to analyze the various methods of cycle balancing. For the annual convention the committee presentation will consist of a study of collection notices from both the customer relations and the preparation cost points of view. Interim reports will also be prepared treating on the subject of continuous transfer of meter reading sheets.

The Accounting Section committee on Customer Relations, with H. F. Willis, Chicago, Illinois, as Chairman, will coordinate its activities with the general Association Committee on Customer Relations, of which E. R. Acker, Poughkeepsie, New York, is Chairman. Specifically, for the Spring Conference it was decided to present a paper on "Getting Results from Personnel on Customer Relations," which will cover not only the necessary training and supervision of customer contact employees, but also suggestions for correcting and improving present conditions and present personnel. Other activities of this committee will include the customary reports at the annual convention as well as the preparation of interim reports and articles for the AMERICAN GAS ASSOCIATION MONTHLY on specific subjects relating to various phases of customer relations.

Missed Meter Reading Procedure

By S. STANLEY ELLIS

Public Service Electric & Gas Co., Newark, New Jersey

THE purpose of this article is to describe the procedure for missed meter readings in Public Service Electric and Gas Company.

While the averaged billing plan is in use in this company, under which plan the meter readings that cannot be obtained are estimated based on previous use and other factors, there are certain accounts that are excluded from the averaged billing plan, such as accounts that have not been read for two consecutive months, and accounts which exceed a certain consumption. For such accounts the missed meter reading procedure described below is followed.

In the main the plan involves the appropriate entry on the meter reading record by the meter reader, the preparation of follow up forms, and the subsequent follow up by the bookkeeping department to see that a bill is rendered as soon as possible. The detail follows:

Meter Reading Procedure

For all missed reading accounts the meter reader draws a line in the *lower part* of the "Reading" column on the meter reading record, opposite the month being read. If the meter reading is obtained later, it is entered just above this line. The meter reader also records the reason the reading could not be obtained, on the back of the meter reading record.

Contribution of Customer Accounting Committee.

EG 951

ROUTE 14-2-1 DATE 1-20-38

NAME JOHN DOE ADDRESS 545 So 10 STREET

OUR METER READER CALLED AND FAILED TO GAIN ACCESS TO READ THE GAS AND ELECTRIC METERS. WE WILL APPRECIATE IT IF YOU WILL READ METERS AND MAIL CARD TO OFFICE PROMPTLY.

PUBLIC SERVICE ELECTRIC AND GAS COMPANY

DIRECTIONS: MARK POSITION OF HANDS ON DIALS BELOW, DRAWING LINES FROM OUTSIDE OF CIRCLE TO CENTER. IF YOUR GAS METER HAS ONLY THREE DIALS, USE THE THREE LAST (RIGHT HAND) DIALS ON THE CARD. ALSO INDICATE DATE OF READING.

GAS

METER NO 149862

LAST INDEX 9360 DIFF 112

9 4 7 2

ELECTRIC

METER NO. 264202

LAST INDEX 3800 DIFF 198

3 9 9 8

DATE READ 1-20-38

Exhibit 1—Missed reading post card

EG 889A 2500M 5-37 SERIAL NO. 542

MISSING INDEX RECORD
RESIDENTIAL SERVICE

DISTRICT NEWARK

ACCOUNT NO. 14-2-1 CODE 1

NAME JOHN DOE

STREET 545 So 10 STREET

MUNICIPALITY NEWARK NJ

BILL ON BASIS OF ✓ WATTS OUTSIDE LTG. ✓ K.W. DEMAND

		GAS METER NO. 149862		ELECTRIC METER NO. 264202	
	DATE	INDEX	CONS.	INDEX	CONS.
PRESENT	1-20-38	9472	112	3998	198
					CONSTANT
PRIOR	12-21-37	9360	X	3800	1

GAS MINIMUM $ 1.00 ELECTRIC MINIMUM $ 1.00

REMARKS

INDEX TAKEN BY Fred Smith

EG 889C 250M 5-38 SERIAL NO. 542

MISSING INDEX RECORD
OTHER THAN RESIDENTIAL SERVICE

DISTRICT NEWARK

ACCOUNT NO. 14-2-1

NAME JOHN DOE

STREET 545 So 10 STREET

MUNICIPALITY NEWARK NJ

GAS RATE GS6 ELECTRIC RATE GS CODE 36

		GAS METER NO. 106604		ELECTRIC METER NO. 186422	
	DATE	INDEX	CONS.	INDEX	CONS.
PRESENT	1-20-38	462	32	5064	124
					CONSTANT
PRIOR	12-21-37	430	X	4940	1

GAS MINIMUM $ 1.00 ELECTRIC MINIMUM $ 1.00

REMARKS

INDEX TAKEN BY Fred Smith

EG 888B 125M 9-37 SERIAL NO. 542

MISSING INDEX RECORD
POWER SERVICE

DISTRICT NEWARK RATE RP

ACCOUNT NO. S 14-2-1 CODE 36

NAME JOHN DOE

STREET 545 So 10 STREET

MUNICIPALITY NEWARK NJ

POWER METER NO. 134062 VOLTAGE

	DATE	WATT HOUR READING	DIFFERENCE	CONSUMPTION
PRESENT	1-20-38	2948	480	4800
			CONSTANT	MINIMUM
PRIOR	12-21-37	2468	10	$ 26.00

SUMMATION READING	DEMAND INDEX	BILLING DATA	
		MAXIMUM DEMAND	CONNECTED LOAD
PRESENT 10.0	1.5	20.00 H.P.	52.00 H.P.
	CONSTANT	MAXIMUM DEMAND	FIRST STEP
PRIOR 8.5	10	15.00 K.W.	400 K.W.H. 3600 AMT.

INDEX TAKEN BY Fred Smith

Exhibit 2—Missing index records. The originals are in three colors, white, pink and orange

In all cases where the meter reading is not obtained and is not estimated, a Missed Reading Post Card is left at the customer's premises. This card is a regular business reply card, the postage on which is collected from the company. The meter reader enters on the post card the account number, name and address of the customer, and the meter numbers.

See Exhibit 1—Missed Reading Post Card.

Missing Index Records covering all such meters are prepared in triplicate at the end of the day by the meter reader. The original copies are placed in a pending file in the Meter Reading and Collection Department, the duplicates are sent daily with the meter reading books to the Customers' Billing Department, and the triplicate copies are filed separately and later used as a follow-up to make sure meter readings are secured.

If the missed meter readings are not sent in on the post cards by the customers, they are obtained either by bill deliverers, collectors, or special representatives.

The meter reading is entered on the original copy of the Missing Index Record, after which the corresponding triplicate copies are removed from the pending file, and both copies are sent to the Bookkeeping Department.

See Exhibit 2—Missing Index Records.

Bookkeeping Procedure

The missed reading date, reading, and consumption are entered on the meter reading records from the original Missing Index Record, in the Bookkeeping Department. The letter "C" is prefixed if the reading was obtained by the customer, or the letter "S" is prefixed if the reading was obtained by a representative of the company.

After the data have been entered on the meter reading records, a serial number is assigned to each original and triplicate copy of the Missing Index Record. On the first working day of each month a new series of numbers is started.

A statement of Audited Electric and Gas Sales is prepared in duplicate each working day. The serial numbers of the Missing Index Records to be billed are entered on this statement.

The blank pre-addressed bill forms, with the corresponding original Missing Index Records and the original Statement of Audited Electric and Gas Sales, are forwarded daily to the Customers' Billing Department, where the actual billing work is done.

Upon receipt of the completed bills and the Statement of Audited Electric and Gas Sales from the Customers' Billing Department, the delinquent balances, including sundry sales amounts unpaid and due, are entered on the bills, and they are then sent to the customers. The Ledger Record sections of the bill forms are filed in the current trays in the Bookkeeping Department, and the Representative's Coupons are retained for collection follow up.

(Continued on page 455)

CUSTOMER RELATIONS

A Series of Four Sound Slide Films

The Vocafilm Corporation, in consultation with the American Gas Association and a number of practical operating executives, has prepared a series of four sound slide films on constructive customer relations designed primarily for showing at employee meetings.

Each film is designed to increase the efficiency, courtesy, and knowledge of employees. Five major problems common to all operating companies were selected and the answers posed in these four 15-minute sound slide films.

The films are directed to all those who come into contact with the public—meter readers, maintenance gangs, engineers, service men, cashiers, inspectors, telephone operators, information clerks, credit men and salesmen. In fact all employees of a gas company.

An excerpt from one of the films, both pictures and dialogue, is shown here. It is difficult in just a few pictures to show the extent of the treatment of any subject, for that which precedes and follows has a decided bearing on the subject.

The Western Newspaper Union, which has offices in 34 key cities, will have these pictures and will be glad to show them to any gas company. Further details may be obtained from the Vocafilm Corporation, 424 Madison Avenue, New York.

ANNOUNCER:

Make every Customer A Friend. That's the biggest job to be done in the gas industry . . . . and it's a job that can be done only . . . .

By you and me . . . . because we're the people who meet these customers of ours.

It's our job because *our* futures may depend largely upon how good a job we do of making friends with our customers.

Our company's very existence depends on what people think of us. On whether they *like to do* business with us. On their confidence not only in our ability to give them good service, but our desire to treat them fairly, and make it easy and pleasant for them to do business with us.

Industrial Gas Section

Frank H. Trembly, Jr., Chairman Eugene D. Milener, Secretary Franklin T. Rainey, Vice-Chairman

Gas Goes to the National Metal Show

By HARRY W. SMITH, JR.
American Gas Association

AGAIN to spread their wares before those who buy, leading interests in the field of applying gas to industry joined hands in staging an elaborate co-operative show—the annual American Gas Association Combined Industrial Gas Exhibit—at the National Metal Congress and Exposition in Detroit, October 17-21. Yearly, to this event flock the "doers" of the nation's metal-working industries—18,000 of them over a five-day period. Here they seek out that which is new and work with experts in considering the adaptability of equipment to their specific needs.

Thirteen Manufacturers Cooperate

To insure that these key men of the metal world make the most of gas in their thousands of plants, the Industrial Gas Section of the American Gas Association enlisted the cooperation of thirteen manufacturers of industrial gas apparatus and fourteen midwestern gas utilities to fill with interest-demanding exhibits a unified floor area over 5,000 square feet at Convention Hall. The resultant gas exhibit was a show within a show—the only such cooperative display at the exposition. In many respects it stole the party.

The central element was the now-familiar A. G. A. pillar—topped with an incandescent representation of a gas flame and emblazoned with the names of the cooperating exhibitors, as well as the gas utilities whose financial assistance made the Combined Gas Exhibit possible. Around its base lay the A. G. A. lounge, manned afternoon and night by alert industrial field men of the local utility, the Michigan Consolidated Gas Company.

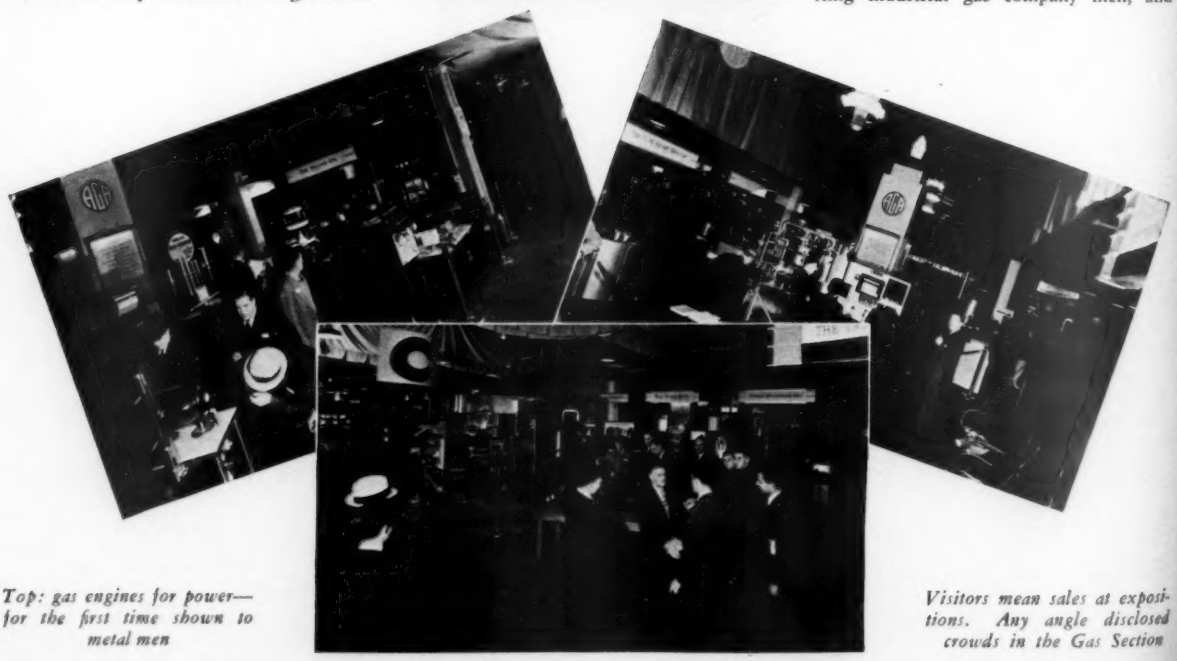
Some 389 articles manufactured in the Detroit area with the aid of gas heat were displayed. The work of forty-three companies, the exhibited items vouched for twenty-nine types of industrial gas heating jobs: bright annealing, annealing, brazing, soldering, tinning, galvanizing, drawing, hardening, tempering, die casting, general heat treating, forging, lacquering, bake enameling, vitreous enameling, jappanning, core baking, gas carburizing, pack carburizing, liquid carburizing, carbo-nitriding, extruding, rolling, stereotype melting, die heating, cold forging, metal melting, hot rolling, and refractory firing.

The significance of this array becomes evident when one considers the size and variety of metal industries in the vicinity of Detroit—consuming roughly 30% of the Michigan Consolidated Gas Company's total sendout (one third of this tremendous industrial load being for heat-treating in the metals field alone).

Grouped about the A. G. A. pillar and lounge were the individual booths and equipment of the thirteen exhibiting manufacturers.

Industrial Gas Breakfast Launches Week's Work

To draw together for united effort the personnel of the exhibiting firms, the visiting industrial gas company men, and



Top: gas engines for power—for the first time shown to metal men

Visitors mean sales at expositions. Any angle disclosed crowds in the Gas Section

representatives of the metal trade press, the A. G. A. Industrial Gas Section held its yearly breakfast on October 19 in the English Room of Webster Hall Hotel, Detroit.

Frank H. Trembly, Jr., chairman of the Industrial Gas Section, presided. After welcoming the visiting metals magazine editors, he introduced the chairmen of several committees of the Section. Also, he reviewed the reasons for holding the A. G. A. Combined Industrial Gas Exhibit each year, and discussed methods whereby all present could make the effort most effective.

Hale A. Clark, industrial engineer, Michigan Consolidated Gas Company, introduced the guest speaker, A. I. Snyder, assistant to vice-president and general manager of that utility, who spoke to the group, outlining the possibilities for greater industrial gas and gas equipment sales presented by the cooperative exhibits at important national expositions.

It was observed that the current cooperative gas display was not only the largest, but the most complete and elaborate of the thirteen held since 1925. Mr. Snyder further remarked upon the fertility of the Detroit area for industrial gas equipment sales and emphasized the important part played by industrial gas equipment manufacturers in building the industrial gas load.

Improved Gas Equipment and New Items Highlight Show

Significant in the gas exhibit was the display of Ready-Power Company, for there was installed and operating a four-cylinder automatic gas engine powered by natural gas and driving a 7½ kw. electric generator. It was the first time that gas power had been shown at a National Metal Show.

Miscellaneous burner, control, mixing, and blower equipment was present in wide variety—from the 5,400,000 B.t.u.-per-hour flame retention tip shown by Stirling-Detroit to the tiny glass-working jets burning for American Gas Furnace. Interesting new equipment was: Eclipse Fuel Engineering Company's self-contained "Gas Gun" good for 1,200,000 B.t.u. per hour; The Selas Company's direct-reading "Flo-scopes"; Industrial Heating Equipment Company's "Circ-Air" continuous type recirculating furnace designed to operate without temperature head; Charles A. Hones' gas-fired atmospheric pot units requiring no blower or power; and Surface Combustion Corporation's remarkable new "Char-Mo" heat-treating furnace using a charcoal-filled retort to evolve special atmosphere gas and guard against decarburization—even with the touchy molybdenum steels. Demonstrations of this furnace attracted hundreds of people every day.

It was apparent that recent strides have been made in pot furnaces. Several units engineered along the latest improved principles were displayed. Hot tubes for stereotype melting and the "Atmos-gas" system for bright annealing were shown by The C. M. Kemp Manufacturing Company. Ensign-Reynolds had, among other equipment, an eight-foot ribbon-burner equipped so the passer-by could turn a knob and vary the linear heat output from heavy-on-one-end to even-across to heavy-on-the-other-end.

Both Despatch Oven Company and Eclipse Fuel Engineering Company made much of improved convected air units for tempering and drawing. Paul Maehler Company showed flexible oven air heater units of latest design, as well as its light, air-tight system of oven panel insulation. Partlow Corporation had a full line of temperature controls well arranged for study.

Nearly all the gas equipment was shown *in operation*—with flame and fury to heighten the color. The metal industry could see modern gas *in action*—doing modern jobs effectively and efficiently.

The exhibit was one of four organized and conducted during the year by the Industrial Gas Section's Committee on Displays at National Industrial Expositions.

(Continued on page 456)

Hotel Men Find Better Gas Units Ready to Help

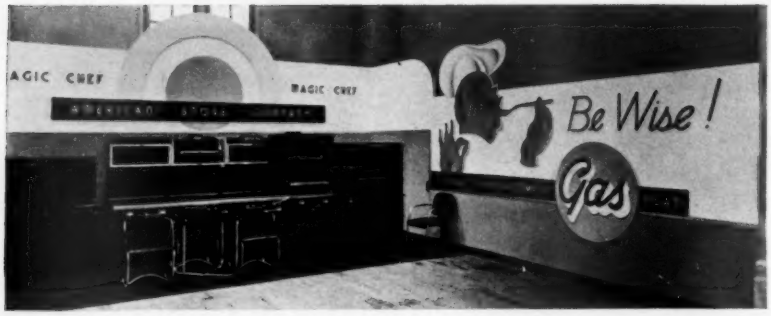
The Cooperative Gas Booth covered nearly the whole north wall at the Hotel Show

THE chef and his boss, the hotel or restaurant manager, took a few lessons last week on the modern, efficient way to do things—with gas—when the Industrial Gas Section of the American Gas Association and the Consolidated Edison Company of New York, Inc., jointly took over 80 linear feet of booths at the 23d National Hotel Exposition, Grand Central Palace, New York City, October 24-28, and made it possible for manufacturers of heavy-duty gas cooking equipment to display the latest in hotel, restaurant and institutional kitchen appliances.

Grouped into three units before a handsome, unifying back-wall—the handiwork of the prize-winning Display Department of Consolidated Edison Company—lay the equipment of Detroit-Michigan Stove Company, American Stove Company, and Standard Gas Equipment Corp. Without the full cooperation of these three concerns, the joint exhibit would not have been possible. Alongside the joint exhibit, The G. S. Blodgett Company and J. C. Pitman & Sons had their displays. Scattered throughout the hall were the booths of six other manufacturers of commercial gas cooking apparatus: Majestic Manufacturing Company, Savory Appliance Inc., Star Manufacturing Company, The Silex Company, The Broilerizer Company, and Hill-Shaw Company—plus the booths of numerous producers of miscellaneous laundering, and dishwashing apparatus using gas burners for incidental heating assignments.

Of the 52,000 managers of hotels, restaurants, clubs, institutions, and hospitals who paraded through the show during its 5-day stand, none could leave the American Gas Association—Consolidated Edison space with a feeling other than that "Gas is the real up-to-the-minute fuel for *my* needs"

On the side wall of the combined gas booth a huge, jolly chef sipped from a poised spoon, and, with his right hand precisely pinching the air, exclaimed "Be wise! *Modernize* with automatic GAS heat." Cupped gracefully between the three equipment display areas were semi-circular lounging areas furnished with chairs and tables and manned by commercial utilization experts from Consolidated Edison. Under the direction of Robert V. Howes, manager of the Industrial Division of the Appliance Promotion Bureau of that utility, these men worked along with the appliance manufacturing company representatives, answering



countless questions from the gas companies' standpoint. The walls of the lounging areas carried giant photographs of typical all-gas hotel kitchens.

Dollar-Saving Refinements in Gas Cooking Equipment Evident

The sections of heavy-duty equipment shown by Standard Gas Equipment Corp. incorporated such sales-getting features as: a heavily finned fry top, weighing no less than 187 pounds (the heaviest on record according to C. H. French, manager, Hotel and Commercial Equipment), adjustable spring suspensions for doors and grids which are kept out of de-tempering heat zones, and deep fat fryers with oval-shape hot tubes so designed that greatest heating is in the most useful direction. Standard Gas Equipment sported also its new No. 5001 brick-lined bake oven, and a new No. 4800 line of "tea room" or restaurant range sections. Four inches of refractory are used on the sides and bottom of each deck of the bake oven, and the light range equipment carries a new and improved type burner head.

American Stove Company, too, displayed a new light restaurant line—the No. 190—with top-insulated and extra large ovens. In the heavy-duty classification, the uniform-heat-top section with its two halves, independently operated for maximum flexibility, caught the eye. General improvement throughout, multiple-deck bake ovens included, was the keynote of American Stove's 1938 models, opined George Henderson, Philadelphia representative for that company.

Nor has Detroit-Michigan Stove Company missed any bets in its current offerings. Sturdier doors, smooth bolt-free tops, easy-to-clean contours, improved fat fryer sections, deeper and higher shelves, and greater durability through more allowance for top expansions and contractions, characterized this manufacturer's No. 28 heavy-duty series. A new "cafe" line was also proudly pointed out by W. J. Hill, sales manager, Utility Division.

Whether they dub it cafe, tea room, or light restaurant apparatus, it is apparent that all major suppliers are bringing out new gas equipment for the armies of chefs in small to medium size establishments. And, of course, well engineered radiant elements are incorporated in most broiler and salamander designs.

Niches and wings in the joint display offered the opportunity of adding to manufacturers' messages

Gas Saves over Coal in Baking Pizza Italian Snack

Interesting news on The G. S. Blodgett Company sales front concerns the cooking of that palate-pleasing Italian snack known as the pizza (peetz). Says Daniel J. Brogan, "Any pizzeria ('Italian bakery' to you) can make pizzas for a fuel cost of $10 to $12 per month with gas and a Blodgett oven, as over and against $20 to $28 per month with the traditional and more costly coal-fired pizza-oven. And pizzas are expected to do for Italian-American cookery what chop suey did for Chinese-American fare." As your correspondent gets it, a pizza is thin, hot rarebit-biscuit hybrid involving cheese, tomatoes, pimentoes, olive oil, and occasionally anchovies, garlic, or mushrooms—depending upon whether you want to pretend you are a Napolitani (that means from Naples) or just an ordinary Italian.

When it comes to deep fat frying, J. C. Pitman & Sons and Star Manufacturing Company, specialists in the field exhibited full lines. Pitman has redesigned its whole burner system for easier service and maximum efficiency. Now there is an individual inspirator for each immersion-tube burner, a main gas shut-off valve, and simple front removal of the whole combustion system. An extra-order shelf has been added which also allows for more fat expansion with heavy loads of food. Two new models are a smaller doughnut machine (18") and a smaller square fryer (10"). Star's 1938 units have porcelain enameled kettles and a higher degree of stream-lined beauty. A combined frankfurter steamer and roll warmer for roadstand use was a feature in this booth.

Charcoal Broiling Can Mean a Gas Load Now

Any load-builder would have lingered before the broiler ranges which Majestic Manufacturing Company and The Broilerizer Company had operating on the floor—turning out choice charcoal-grilled tid-bits. They were fired with both gas and charcoal—the gas from above the grid, the charcoal from a bed below it. Where popular fancy and kitchen advertising calls for charcoal grilling despite the economy, speed and convenience of all-gas cookery, apparatus such as this can keep the restaurateur from buying all-charcoal equipment which turns no meters. The makers of the broilers contend that simultaneous radiant cooking on both sides sears meat rapidly and seals in tasty juices.

Counter Appliances Round Out Hotel Gas Cooking

Toast and coffee made with gas heat had their inning, too, at the National Hotel Show. Savory Appliances' well-known revolving counter toasters were shown in all sizes with two new infant cousins: a new vertical broiler for off-peak-hour meat cooking (large consumption broilers need not be kept heated up) and regular service at smaller stands; and an adaptation of the Savory revolving toaster designed to warm frankfurter rolls on a production scale.

The Silex Company made news of a new automatic control system on the water preheater tank supplied with its niftiest gas coffee-maker ranges; and Hill-Shaw Company has reduced the diameter of the gas burners it uses under its Vaculators. Modernized Products, Inc., whose cleverly designed glass coffee-maker stoves have been so successful in the west, exhibited to spread its distribution eastward. It is this company's policy to merchandise their units only through coffee companies whose interest is strictly in better coffee, not just another appliance sale. Their Stovex units

shared honors with the coffee in the La-Touraine Coffee Company booth. The usual variety of gas coffee urns was also displayed.

Quite apart from cooking, a tour of the show disclosed hotel and restaurant gas-burning equipment aimed at dish-washing and ironing jobs. Among the dish-washing apparatus the products of Champion Company, Hobart, Faspray Corp., G. S. Blakeslee & Company, and Colt Autosam, were prominent. Atmospheric gas burners are used in these washers to maintain the temperature of the washing water. Seldom do such burners exceed 100 cubic feet per hour in consumption, even in machines of huge size.

In the laundering field, American Laundry Machinery Company exhibited a 75", 3-roll flatwork ironer employing a large, revolving metal drum fired internally from nozzle gas burners at each end. Gas at ordinary service pressures passes through a regulator and is inspirated by low pressure air from a blower mounted on the undercarriage of the machine. A secondary air blast is fed to the flame at the nozzle, and all flue gases are vented from the ironer drum peripherally at the ends.

All in all, it was apparent from the exposition that gas is playing a part of increasing importance in modern hotel, restaurant, and institution operation. Over and above the uses for gas discussed above, many hotels and restaurants heat water, generate steam, operate furnaces and even air condition with gas-fired units.

The American Gas Association—Consolidated Edison Company display at the National Hotel Exposition was one of four organized and conducted each year by the Industrial Gas Section's Committee on Displays at National Industrial Expositions. C. Foster Clark, Michigan Consolidated Gas Company, is chairman of the committee, and Eugene D. Milener of the American Gas Association and Robert V. Howes of Consolidated Edison Company of New York, Inc., organized the show.

Restaurateurs who passed this booth thought of their customers' health

Restaurant Show Features "Sterilization with Hot Water"

"180° HOT WATER KILLS GERMS—Raise Your Hot Water Supply to 180° F. at Low Cost with Gas." Thus read the message dramatized before the restaurateurs of the country at the booth of the Industrial Gas Section of the American Gas Association during the 20th Annual National Restaurant Exposition held in Chicago's Furniture Mart, October 3-7.

By way of demonstrating how the point took with the 11,059 visitors who registered at the show, witness the following from the October 7th issue of *The Daily Griddle*, published by the publishers of *The American Restaurant Magazine:*

"You have to hand it to Tom Gallagher. (T. J. Gallagher, Manager of Commercial Sales, The Peoples Gas Light & Coke Co., Chicago, chosen by the Industrial Gas Section to stage this exhibit.) When he starts to tell a story he really pins it on. Look at the way he is telling that "sterilization with hot water" story at the American Gas Association exhibit. Those magnified microbes or bacteria or whatever they're supposed to be surely look like the real thing. You sort of get the idea that Tom means for the folks to use gas heat for the kind of hot water that really kills the bugs."

Over and above slogans and art-work, the American Gas Association booth showed five improved types of automatic gas water heaters which restaurant managers prefer. Also exhibited was a special glassware sterilizer.

The exhibit was one of four conducted this year by the American Gas Association

(Continued on page 455)

INDUSTRIAL & COMMERCIAL ADVERTISING FOR DECEMBER

The Advertising Committee of the Industrial Gas Section, J. P. Leinroth, chairman, and F. B. Jones, vice-chairman, announce that full-page advertisements will appear in the following trade and business magazines during the month of December:

Magazine	Date	Topic
American Restaurant	December	Gas for Commercial Cooking
Hotel Management	December	Gas for Commercial Cooking
Modern Hospital	December	Gas for Commercial Cooking
Bakers Helper	December 10	Improved Gas Bake Ovens
Bakers Weekly	December 3	Improved Gas Bake Ovens
Ceramic Industry	December	Gas in the Ceramic Industry
Food Industries	December	Gas for Heat Processing of Foods
Industrial Heating	December	Gas for Heat Treating Metals
Iron Age	December 29	Gas for Heat Treating Metals
Metals and Alloys	December	Gas for Heat Treating Metals
Metal Progress	December	Gas for Heat Treating Metals
Steel	December 26	Gas for Heat Treating Metals
Modern Beauty Shop	December	Gas Hair Drying

Water Heating Data

LAWRENCE E. BIEMILLER, chairman, Volume Water Heating Committee for the Industrial Gas Section, is desirous of obtaining information and test data on installations producing 180° water. He requests that anyone in a position to furnish such data communicate with him promptly at 412 Lexington Building, Baltimore, Md. A paper or report on this important subject is planned for early completion.

Technical Section

F. M. Goodwin, Chairman H. W. Hartman, Secretary A. M. Beebee, Vice-Chairman

Engineers and Chemists Organize for 1939

Photos by A. Gordon King

The Managing Committee sets up its program for the new year. Shown here are—seated around table, starting at left: C. F. Turner, D. P. Hartson, C. S. Goldsmith, F. B. Parke, J. H. Wolfe, Gladys Hanshaw, F. M. Goodwin (chairman), L. J. Willien, A. M. Beebee (vice-chairman), O. H. Smith, F. C. Weber, Dr. A. R. Powell. Standing, left to right, are: A. C. Cherry, H. K. Seeley, John J. Garland, E. M. Bliss, S. J. Modzikowski, R. G. Griswold, H. W. Hartman, Louis Shnidman, K. B. Nagler. (To the decapitated gentlemen, E. M. Bliss, H. G. Horstman, J. V. Postles, W. J. Murdock, our humble apologies—the camera slipped)

ON November 16, 17 and 18, organization meetings were held in New York City of the following committees of the Technical Section: Gas Production, Chemical, Distribution, Gas Conditioning, and Managing and Advisory.

Following the logical division of the activities involved in the production and distribution of gas, these committees considered the many problems involved in the performance of the service our industry has so ably rendered throughout the years. Under the able leadership of F. M. Goodwin, of Boston, chairman of the Technical Section, there was reviewed in more detail than can be reported all possibilities for further perfecting this service. The highlights of the various meetings are given below:

Gas Production Committee

Present: F. B. Parke, *Chairman*, Brooklyn, N. Y.; W. K. Beard, Vice-Chairman, Philadelphia, Pa.; F. M. Goodwin, Boston, Mass.; E. M. Bliss, Newark, N. J.; John Crilly, Elizabeth, N. J. (by invitation); R. H. Arndt, Baltimore, Md.; B. R. Challenger, Washington, D. C.; R. M. Kellog, New York, N. Y.; R. E. Kruger, Rochester, N. Y.; K. B. Nagler, Chicago, Ill.; George Pfaff, Baltimore, Md.; R. F. Tenney, Rockaway Park, N. Y.; L. J. Willien, Chicago, Ill.

Among other considerations the committee decided upon the following subjects for the year's work:

Water Gas

Light oil recovery—economy and operation.
Smoke control water gas sets.
Soft coal use in sets.
Factors affecting set capacity.
Discussion of tar handling equipment.
Devaluation of refractories in sets.

Carbonization

Symposium on coke oven brickwork.
Utilization of coke breeze in powdered fuel boilers.
Description of new low type coke oven.
Liquid purification—ammonia in gas for pH value.

There was stressed throughout the meeting the need for further concentration on by-products.

Chemical Committee

Present: E. M. Bliss, *Chairman*, Harrison, N. J.; S. J. Modzikowski, Vice-Chairman, Chicago, Ill.; Prof. W. J. Huff, Baltimore, Md.; F. M. Goodwin, Boston, Mass.; W. H. Fulweiler, Philadelphia, Pa.; H. J. Meredith, Kearny, N. J.; Prof. J. J. Morgan, New York, N. Y.; W. L. Shively, New Haven, Conn.; R. J. Sheridan, Brooklyn, N. Y.; Louis Shnidman, Rochester, N. Y.; S. S. Tomkins, New York, N. Y.; E. L. Sweeney, Boston, Mass.; L. M. Van der Pyl, Pittsburgh, Pa.

Technical publications under the jurisdiction of this committee were first considered, including:

Fuel Flue Gases—a treatise that will emphasize the uses of gas analyses.
Revision of the Chapter on Gas Analyses from the former Gas Chemist's Handbook.

The work on fuel flue gases is expected to be available for publication about January 1, and Mr. Fulweiler, Editor for the Revision of the Chapter on Gas Analyses, reported that the text would be ready at the time of the Production and Chemical Conference.

The following topics were decided upon as suitable for conference papers, etc.:

Production Papers

Empirical relation between the physical properties of an oil and its carburetting value as determined by the cracking test. Sponsor E. M. Bliss.
Methods of reducing corrosion in plant equipment. A cooperative paper with the International Nickel Co., to bring to public notice data accumulated by their test spools. Sponsor H. J. Meredith.

Gas Conditioning

Control and Practical Operation of Oxide Boxes. Sponsor E. L. Sweeney.

The Distribution Committee tackles its 1939 problems. Left to right, seated, are: D. P. Hartson, Fred M. Goodwin, H. B. Andersen, C. F. Turner (chairman), D. P. Allen, A. F. Fuller, L. W. Tuttle, C. H. Waring (vice-chairman), O. H. Folger. Standing: H. W. Hartman, A. V. Smith, John J. Crilly, W. J. Murdock, William Lawton, Jr., C. S. Goldsmith, H. L. Peden

Ammonia as a substitute alkali in liquid purification systems and the effect of traces of ammonia in the distribution system. Sponsor Louis Shnidman.

Sodium Phenolate Process of Hydrogen Sulphide Removal, Koppers Co. Ten years of experience with gas dehydration. Sponsor W. L. Shively.

Utilization Papers

Composition of flue gas after combustion with insufficient air. Sponsor A. G. A. Laboratories.

Analyses and Tests

Use of ultraviolet light in the gas laboratory. Sponsor Louis Shnidman.

The determination of the pH value of oxides. Sponsor J. E. Brewer.

The determination of organic sulphur. A method developed by Mr. Dodge of the DuPont Co.

Comparison of methods of oil fog determination. Sponsor Mr. Mathias, Standard Oil Company of Indiana.

Methods of determining water vapor in gas. Sponsor A. W. Gauger of Penn. State College.

Distribution Committee

Present: C. F. Turner, *Chairman,* Cleveland, Ohio; C. H. Waring, Vice-Chairman, Kansas City, Mo.; F. M. Goodwin, Boston, Mass.; D. P. Allen, Washington, D. C.; H. B. Anderson, Philadelphia, Pa.; John Crilly, Elizabeth, N. J.; O. H. Folger, Newark, N. J.; A. F. Fuller, New York, N. Y.; C. S. Goldsmith, Brooklyn, N. Y.; D. P. Hartson, Pittsburgh, Pa.; W. J. Murdock, Joliet, Ill.; William Lawton, Jr., Richmond, Va.; H. L. Peden, New York, N. Y.; A. V. Smith, Philadelphia, Pa.; L. W. Tuttle, Chicago, Ill.; L. J. Willien, Chicago, Ill.

Chicago, Ill., April 17, 18 and 19, 1939, was chosen as the time and place for the Distribution Conference.

The Subcommittee on Cast Iron Pipe Standards has ready for printing one portion of the revised standards specified by the A.S.A. Committee D-21 relating to pit-cast iron pipe and fittings which will be distributed for approval to the membership.

The Meters Subcommittee reported the following continuing activities:

Further work on compiling a directory of articles on meters and metering practices, bringing up-to-date the meter testing manual.

Continued effort toward meter standardization.

A report was made on some preliminary and experimental work on the use of a new synthetic meter diaphragm material, the results of which should be available for the Distribution Conference. The committee is planning to develop a questionnaire on meter shop practices to be of benefit particularly to small meter shops.

The Pipe Joints and Pipe Materials Subcommittee during the next year will concentrate first on drawing up minimum specifications for boltless couplings for service and small main connections.

A comprehensive report by the Subcommittee on Pipe Coatings and Corrosion included among other matters:

1. Appointment of a representative of the A. G. A. on a proposed A.S.T.M. coordinating committee on corrosion information.
2. Proposed work of the Bureau of Standards in a field study of pit depth time relationships, including the employment of a statistician to be located at the Bureau.
3. Report on the encouraging sales of Dr. Ewing's book, "Soil Corrosion and Pipe Line Protection."

Gas Conditioning Committee

Present: O. S. Hagerman, *Chairman,* New York, N. Y.; F. M. Goodwin, Boston, Mass.; Prof. W. J. Huff, Baltimore, Md.; H. D. Lehman, Philadelphia, Pa.; E. J. Murphy, Brooklyn, N. Y.; K. B. Nagler, Chicago, Ill.; Dr. A. R. Powell, Pittsburgh, Pa.; D. S. Reynolds, Boston, Mass.; L. J. Willien, Chicago, Ill.; E. M. Bliss, Newark, N. J.; L. Carlson, New York, N. Y.; B. R. Challenger, Washington, D. C.; R. M. Conner, Cleveland, Ohio; R. L. McAll, New York, N. Y.; C. F. Turner, Cleveland, Ohio.

This committee considered at length all possible means of further modification of the gas produced and distributed in order to meet the most exacting requirements for its utilization. The effect of organic sulphur and gums, as well as the relative responsibility of other impurities for the existence of all kinds of deposits affecting utilization was thoroughly reviewed. It was decided to appoint a special committee to study conditions in various cities reporting trouble, with a view to ultimately employing a research man to make definite recommendations on operating conditions in cities where troubles are reported. Tests at present being conducted in various cities were described, and will be continued for further report at the Production and Chemical Conference.

Managing and Advisory Committee

Present: F. M. Goodwin, *Chairman,* Boston, Mass.; A. M. Beebee, Vice-Chairman, Rochester, N. Y.; E. M. Bliss, Newark, N. J.; A. C. Cherry, Cincinnati, Ohio; John J. Crilly, Elizabeth, N. J.; J. J. Garland, Brooklyn, N. Y.; C. S. Goldsmith, Brooklyn, N. Y.; R. G. Griswold, New York, N. Y.; H. G. Horstman, Indianapolis, Ind.; S. J. Modzikowski, Chicago, Ill.; W. J. Murdock, Joliet, Ill.; K. B. Nagler, Chicago, Ill.; F. B. Parke, Brooklyn, N. Y.; J. V. Postles, Philadelphia, Pa.; A. R. Powell, Pittsburgh, Pa.; C. F. Turner, Cleveland, Ohio; H. K. Seely, Syracuse, N. Y.; O. H. Smith, New York, N. Y.; L. J. Willien, Chicago, Ill.; J. H. Wolfe, Baltimore, Md.; F. C. Weber, Glen Head, L. I., N. Y.; Louis Shnidman, Rochester, N. Y.; D. P. Hartson, Pittsburgh, Pa.

The reports of all the Technical committees were thoroughly reviewed. Recommendations for the purpose of improving work of the Section were adopted for the consideration of the Executive Board. It was announced that the time and place for the annual Production and Chemical Conference will be Rochester, N. Y., May 15, 16 and 17.

The Chemical Committee whips its program into shape for a banner year. Left to right: W. H. Fulweiler, W. L. Shively, E. L. Sweeney, L. M. Van der Pyl, S. J. Modzikowski, H. J. Meredith, E. M. Bliss (chairman), Prof. J. I. Morgan, Gladys Hanshaw, R. J. Sheridan, Louis Shnidman, S. S. Tomkins, Prof. W. J. Huff

Bureau of Standards Committee Report

EXPERIMENTS ON PROVING DOMESTIC GAS METERS

The above report represents a very comprehensive test conducted by the National Bureau of Standards in cooperation with the Washington Gas Light Company. It should prove of extreme interest to all meter superintendents. A limited number of copies will be available at a cost of 25¢ per copy. If you are interested please send your orders to H. W. Hartman, Secretary, Technical Section, A. G. A. Headquarters, indicating the number of copies required.

Utility Wages High

PUBLIC utilities, with an average hourly wage of 67.5 cents, stand well above the Texas average, being one of the five highest industries surveyed by the bureau of business research of the University of Texas, according to a report recently released by the bureau, which has just finished a canvass of all important industries in the state. Manufacturing industries over the state pay an average of 59.2 cents as an hourly wage, with an average of 40.7 hours of work a week, the report showed.

MARKET FOR HOUSE HEATING

(Continued from page 428)

service responsibility. The architecture is such as to provide common front and rear entrances—often rear porches—which means waste disposal is the tenants own problem. No janitor is required, as structural repairs constitute the only upkeep problem. The cleanliness and hominess of the average modern flats foster a proprietary interest among its tenants, who appear glad to share the care of lawns and walks.

A unique advantage in ownership of a group of flats is the easy stages with which they can be liquidated. In times of stress, apartment owners have had to lose an entire building because they were unable to carry it in the entirety. Ability to dispose of flat properties fractionally—in blocks of four units—makes for insurance against such unforeseen demands as curtailment of mortgage, which might jeopardize all of one's holdings if they were in a single building. Four to forty flat units can be under one roof, each four individually titled.

Tenant Gets Money's Worth

In passing, it is worth noting that the ultimate consumer—the tenant—gets his money's worth in this type of housing. He enjoys low *cost* living without necessarily lowering his *standard* of living. He pays for such services as heat and hot water on an equitable basis, frugality is rewarded, waste is penalized. His neighbors are limited in number, and he can be as isolated from them as he chooses. There are certain privileges of home provided, such as a sodded, landscaped yard with gardening opportunities.

Now, what is involved in introducing this flat type of construction? In the first instance, we haven't done it without considerable effort. It is no small task to tell someone, notably an operative builder, how to spend his money, but that must be done. We know that gas heat is only as efficient as the building in which it goes. If we want to gain the utmost reward for our efforts, we must insist on good construction. And, it helps the builder with whom we are dealing. We cannot go to heaven alone! He goes with us, sharing our blessings in the form of public confidence. The high standards of construction exemplified by the flats of Washington demonstrate the success of our method of cooperation.

This particular plan might have absolutely no place in your local scheme of things, but what you will all doubtless agree on is that it admirably illustrates certain *principles* that can be applied universally. Among them are the practice of sincerely making your clients' problems your own problems, the desire to *get* only by *giving;* to exceed in your willingness, the demands made upon you by your company and by your community.

Revised Requirements Become Effective January 1, 1939

ON October 31 four sets of revised requirements were approved as American Standard by the American Standards Association. These include approval requirements for gas water heaters and central heating gas appliances, and listing requirements for flexible gas tubing and for attachable water heating units without water-carrying parts. All of these standards were given final approval by the A.S.A. Sectional Committee, Project Z21, A. G. A. Approval Requirements Committee at the July meeting of that group. They are to become effective January 1, 1939.

The principal provisions in these which differ from the current standards are as follows:

1. Central Heating Gas Appliance Standards

New efficiency requirements are added for fan type furnaces, including floor furnaces, providing for the delivery of air at a temperature rise between the limits of 70° and 100° F. With the exception of floor furnaces, this test is made against a static pressure of 0.2 inch water column. In addition to this change, the minimum allowable thermal efficiency requirement for fan type furnaces, including fan type floor furnaces, has been increased 5%.

The normal pressure combustion test has been eliminated but a combustion test has been added to insure satisfactory performance of draft hoods under down-draft conditions. Different size controls are allowed for manufactured and natural gases, the dividing line being considered as 800 B.t.u. per cubic foot. Individual burner valves on furnaces are no longer required. Burner valves are still specified on boilers under similar conditions to those called for in the current standards.

The requirements for fan type floor furnaces have been strengthened also by making mandatory the use of a temperature limit control, or other means incorporated in the appliance to limit the maximum register temperature.

2. Requirements for Water Heaters

The principal revisions to the approval requirements for gas water heaters and listing requirements for attachable units involve an expansion of both sets of standards to cover appliances for use with undiluted butane and mixtures of butane and propane. In addition, the allowable operating time for automatic devices to prevent escape of unburned gas was reduced from 10 to 5 minutes.

3. Flexible Gas Tubing

The changes made in these requirements were largely of an editorial nature. The title was changed from "Approval" requirements to "Listing" requirements with the result that the Approval Seal for Flexible Gas Tubing has been eliminated and the standard Laboratory Listing Symbol substituted in its place. The Listing Symbol is to be applied in the same manner as that originally followed with respect to the Seal.

Printed copies of the four revised standards referred to have been printed for distribution to interested manufacturers and others. Copies may be secured from the American Gas Association Testing Laboratories, 1032 East 62nd Street, Cleveland, Ohio.

F. C. Meikle Resigns from Laboratories

F. C. MEIKLE, for nine years on the staff of the American Gas Association Testing Laboratories, has resigned to enter the employ of the James Graham Manufacturing Company, at Newark, California.

Mr. Meikle is a chemical engineer, having graduated from Oregon State College in 1930. He went to the Cleveland Laboratories the same year, highly recommended by his faculty, and the following spring was transferred to the newly established Pacific Coast Branch in Los Angeles, California.

Canadian Gas Association

GEORGE W. ALLEN, secretary of the Canadian Gas Association, has announced the 32nd annual meeting of that organization will be held in Hamilton, Ontario, Tuesday and Wednesday, June 6 and 7, 1939. The Royal Connaught Hotel will be the headquarters. T. P. Pinckard of Hamilton is the president of the Association.

INDUSTRIAL RELATIONS PROGRAM

(Continued from page 422)

I am not arguing for or against union organization. I merely suggest that there was something here which apparently made all union appeals fall on deaf ears. The employees knew that they were getting a square deal. They didn't need any outside help to get one. Over a period of years the company had built its reputation for playing the game on the level and the employees knew that no outside organization could get them anything they couldn't get by dealing directly with the management through established channels.

A Well-Rounded Program

Another case comes to mind. It is a company in Detroit manufacturing small tools. The president started years ago as a machinist's helper in the days when a boy learned his trade slowly and painfully, but thoroughly. Today he is at the head of a fine business of his own. Having observed that men who work up from the bottom to own their own businesses frequently make the hardest-boiled bosses, I was interested to learn what his industrial relations policy was. He said he had just one general policy—to treat his employees on the level, but that he didn't go in for any fancy business—they had no industrial relations program. As he went on to tell me how they operated I found that he had what I would call a well-rounded industrial relations program, but he didn't call it by that name. He just called it doing the right thing by his men. He showed me some photographs of his plant, and, as a former industrial engineer, I could not help but admire the modern building, the orderly layout, the obvious cleanliness, and the provisions for good light and ventilation. But what caught my eye in particular was the tool crib.

Those of you who are familiar with machine shop operation can visualize the usual tool crib, usually enclosed by a board fence up to a height of four or five feet, and then with chicken wire up to the ceiling. The tool crib in this plant was open to any employee. When I commented on this rather startling departure from usual practice, the president told me that it had always galled him as an employee to have the company imply that he was a thief and that valuable tools must be kept beyond the reach of his thieving. He decided in his plant he would assume that his men were honest, that when they needed a tool they could go and get it and return it when they were through. And after operating a number of years on this basis he had found no reason to change. He had found that when he treated his employees as fair-minded and intelligent men they had accepted his judgment and lived up to it.

Let Employees Think

These two cases illustrate better than any description I can give what I believe must be the basis of any industrial relations policy that will stand up when the going gets rough. High wages are fine, various projects for improving the workers' status are fine, but they are not enough in themselves. They must be the obvious reflection of an understanding and mutuality between management and workers, a willingness to appreciate the other fellow's needs and problems, to give and take and make allowances, and to work out jointly a philosophy of employer-employee relations that is just to both sides.

Don't be afraid to let employees think. They are going to think anyhow and it is a lot better to have them think openly than below the surface where the Lord only knows what crazy ideas are finding fertile soil in their minds. Encourage them to think and give them the information that will permit them to reach logical and reasonable conclusions about company and about national policy and not only will you build a more intelligent working force but you will also be doing a patriotic duty in building intelligent citizens.

METER READING PROCEDURE

(Continued from page 447)

Billing Department Procedure

When the Missing Index Records, bill forms, and Statement of Audited Electric and Gas Sales are received in the Customers' Billing Department, they are accounted for by number. The Missing Index Records are assigned to an auditing clerk who prefigures the amounts on all prorated accounts, and scans each Missing Index Record to see that all the necessary billing data have been properly recorded. Bills are then prepared on the National Billing Machines.

The accuracy of the billing is determined by first checking the completed bills to the Missing Index Records. The amounts billed are then audited by recording on the billing machine recapitulation tape the consumption at each step of the rate for all prorated accounts. The consumption at each step for each rate billed is then totaled and extended on a Sales Summary form, and the total amount for each rate billed proved with the billing machine totals. The total gas consumption and revenue and the total electric consumption and revenue are then recorded on the Statement of Audited Electric and Gas Sales. The consumption and revenue is taken up in the monthly sales.

The original Missing Index Records are retained in the Customers Billing Department until the following month at which time they are checked with the meter reading records to ascertain that all essential billing data were accurately entered on the Missing Index Records. The Missing Index Records are then returned to the Commercial Offices for filing.

GAS AT RESTAURANT SHOW

(Continued from page 451)

Industrial Gas Section's Committee on Displays at National Industrial Expositions.

But the American Gas Association's booth served as far more than a single display. It was the central feature of a much broader presentation of gas at the National Restaurant Show. Of a total of 134 exhibitors, there were 39 gas cooking appliance displays, more than twice as many as any other type of fuel could boast. In addition, the Fruit Dispatch Company which was frying bananas on the spot, and The General Foods Company, who conducted a special baking exhibit in the cafe kitchen of the National Restaurant Mart adjacent to the Exposition Hall, used nothing but gas-fired fryers and ovens. Among the

prominent manufacturers of gas appliances whose wares were on parade were: American Stove Company, Detroit-Michigan Stove Company, Standard Gas Equipment Corporation, Savory Appliance, Inc., Majestic Manufacturing Company, The Burkay Company, and Irwin Corporation.

Also, at the Friday morning meeting of the National Restaurant Association, convening in connection with the Exposition, D. L. Marquis, treasurer of the Marquis Chain of 13 restaurants in Chicago, represented the Industrial Gas Section and took up the cudgel for gas in his address, "Uses of Gas in the Restaurant." Said he, " . . . . We have 'run the gauntlet' in seeking the best fuel. . . . . We have tried *all* fuels that could reasonably be used for the many applications in restaurant operation. . . . . From our experience gas has been *the only fuel* to fully and satisfactorily meet the necessary requirements." Mr. Marquis described his organization's use of gas, not only for the main business of cooking and baking, but for laundering, ironing, water heating, space heating, and steam generation.

The final report to the committee concerning results of the gas industry's participation in the National Restaurant Exposition states: "We are satisfied that those attending the restaurant exposition, just concluded, went away with a firm conviction of the superiority of gas and gas appliances for restaurant cooking and water heating applications."

GAS AT METAL SHOW

(Continued from page 449)

C. Foster Clark, Michigan Consolidated Gas Company, is chairman of the committee, and Eugene D. Milener is director of exhibits.

Cooperating Gas Companies

Central Indiana Gas Company, Muncie, Ind.
Citizens Gas Fuel Company, Adrian, Mich.
Consumers Power Company, Jackson, Mich.
Detroit Edison Company, Port Huron, Mich.
Michigan Consolidated Gas Co., Grand Rapids, Mich.
The Industrial Gas Company, Newark, Ohio.
The Manufacturers Light & Heat Company, Pittsburgh, Pa.
Michigan Consolidated Gas Company, Detroit, Mich.
Michigan Consolidated Gas Co., Muskegon, Mich.
Natural Gas Company of West Virginia, Pittsburgh, Pa.
Northwestern Ohio Natural Gas Company, Toledo, Ohio.
The Ohio Fuel Gas Company, Columbus, Ohio.
Republic Light, Heat & Power Company, Buffalo, N. Y.
Michigan Consolidated Gas Co., Ann Arbor, Mich.

Exhibiting Manufacturers

American Gas Furnace Company, Elizabeth, N. J.
Despatch Oven Company, Minneapolis, Minn.
Eclipse Fuel Engineering Co., Rockford, Ill.
Ensign-Reynolds Inc., Mt. Vernon, N. Y.
Charles A. Hones, Inc., Baldwin, N. Y.
Industrial Heating Equipment Co., Detroit, Mich.
The C. M. Kemp Mfg. Co., Baltimore, Md.
Paul Maehler Co., Chicago, Ill.
Partlow Corp., New Hartford, N. Y.
Ready-Power Co., Detroit, Mich.
The Selas Co., Philadelphia, Pa.
Stirling-Detroit Corp., Detroit, Mich.
Surface Combustion Corp., Toledo, Ohio.

Dog Bites Fewer

Distributed among meter readers of the Consolidated Edison Co. of New York, a book on how-to-make-friends-with-contentious-canines has cut the number of dog bites. But in 1936 some 220 cases were reported.

Fall Refrigerator Selling Drive

SALES employees of gas utilities throughout the country are competing for awards in the gas-operated refrigerator selling contest being conducted during November and December, according to an announcement from George S. Jones, Jr., vice-president and general sales manager of Servel, Inc., sponsor of the contest.

The Fall and Winter campaign will give salesmen an opportunity to prove their mettle in presenting to the public the new 1939 models of the Servel Electrolux.

Cash awards totalling 231 in number will go to top salesmen in the contest, which closes December 31. There also will be general awards for every salesman selling six or more gas-operated refrigerators during the November-December period.

Personnel Service

SERVICES OFFERED

Engineering graduate, married, employed, having ten years' varied experience in design, manufacture, erection and operation of gas plant equipment, supervision of plant operation and direction of house heating and industrial gas sales engineering, desires position as assistant **engineer** or **assistant superintendent** with small but progressive company. Water gas a specialty. **1221.**

Experienced **manufacturer's representative.** Ten years' experience water heating, commercial and domestic. One year house heating. Also several years' experience selling ranges and refrigerators and later sales manager in the utility field. Many contacts in New York area; will travel. **1223.**

Distribution Engineer with broad experience in high and low pressure transmission and distribution construction, operation, and maintenance. Expert on pipe coatings and corrosion. Intimate knowledge and experience on up to date solutions to distribution problems. Familiar with water gas plant operation. Technical graduate. Would make ideal distribution Superintendent. **1224.**

Technically trained, experienced, commercial industrial and househeating **sales merchandiser** whose proven methods and sales ability will increase revenue. Free to travel. **1230.**

Valuation and **Rate Engineer.** Formerly head of valuation department of major gas transmission company. Fifteen years' broad experience before state and federal courts and commissions. Now holds responsible position in valuation department of large gas transmission and distribution company. Capable of heading valuation and rate department of large gas utility. **1233.**

Distribution Engineer—several years' experience in distribution work in good sized city in middle west. Services available immediately and can go almost anywhere. Distribution work in a supervisory capacity preferred but would consider office work or selling and have extensive acquaintance among gas men throughout the country. **1236.**

Twenty years' experience has made it possible for me to accumulate knowledge that could be used to advantage by either a large or small organization. Can train, manage and direct **retail** and **wholesale** men. Will travel anywhere. Now employed by one of the largest retailers. Conversant in appliance business. **1250.**

SERVICES OFFERED

Positive **meter man** with thorough knowledge of meters desires to make immediate connection. (35). Over eight years in last position; information gladly furnished. **1251.**

Junior engineer (25), good health, with one and a half years' of general oil refinery experience in maintenance and operations wishes change. Experience includes general labor, surveying, drafting, first aid practice, introduction to the operations of the crude and pressure stills, natural gasoline plant, treaters and boilerhouse. **1252.**

Valuation engineer desires position with operating company or group to handle continuing property records, allocation of costs to meet new Federal and State classifications of accounts and development of original costs; college graduate with varied experience; of late years have specialized mostly on natural gas valuations. **1253.**

A young man, graduate, wishes to be placed with a reliable firm. Diversified experience in **architectural draughtsmanship** includes architect's office, hollow metal window detailing, field measurements, foreman interior construction job, store fronts, interior display work and authentic antique reproductions of marble mantels. **1254.**

Intelligent, industrious young man with excellent technical training and several years' practical experience as distribution draftsman, estimating and **selling** all types of gas-heating equipment, warm air, steam and hot water, residential and commercial units. Successful sales record secured in highly competitive territory. **1255.**

Salesman—sixteen years' varied, intensive selling experience in responsible positions with three top-flight specialty manufacturers, contacting gas companies, jobbers and consumers. Traveled United States, widely acquainted with gas company officials. Excellent personal selling record. Organized and directed many sales operations. Outstanding talent is for successful sales promotion. College graduate. (42). **1256.**

Domestic gas **appliance salesman** with successful record, now employed by a gas utility, is looking for a new opening with a utility, manufacturer or distributor. Can furnish strong recommendations from present company. **1257.**

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